

Transforming the University of Minnesota
Final Recommendations of the
Task Force on Undergraduate Reform: Student Support

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Student Support Task Force Executive Summary

Mission of the Student Support Task Force (SSTF)

The mission of the SSTF, as specified by Provost Sullivan in his charge letter to the committee, was to examine approaches in undergraduate education that articulate high expectations and standards for all enrolled students, while providing integrated academic support that improves student outcomes (e.g., retention, learning, timely graduation, satisfaction) and enhances the total student experience. The result should be the timely graduation of bright, curious, motivated students who will be analytical, possess strong communication skills, and become leaders in a global society, consistent with the University's goal to become one of the top three public research universities in the world. (Appendix 1)

Context and Guiding Principles for the Task Force

The most recent data indicate that about 32% of entering freshmen at the University of Minnesota persist to earn a baccalaureate degree within 4 years, and 60% do so within 6 years. Although these statistics represent substantial improvement from where we began 10 years ago, our performance remains unacceptably low and uneven. For example, we continue to rank last among the 34 top-ranked public research universities in 4-year, 5-year, and 6-year graduation rates.¹ In addition, within our own institution, students of color graduate at substantially lower rates than the institutional average. Based on senior exit surveys, students who persist and earn their degrees appear to be reasonably satisfied with their experiences at the University, but we have little data about the experiences of students we do not retain and graduate. Furthermore, because we are only now developing an outcomes-driven, data-guided approach to education and student success, we have little more than anecdotes on which to examine the value that students gain from their experiences at the University.

Based on our personal experiences together with our discussions with University leaders, faculty, staff, students, and alumni, it is clear that the University has a reputation as being a cold and uncaring place in which it is generally difficult for students, faculty, or staff to develop a sense of community. Many of us may be connected to our individual units, but feel disconnected from the University as a whole, as well as its overarching mission. We will never be in a position to provide an “extraordinary education for our students that enables them to learn, grow, and develop in ways that do not occur at other institutions”² if we continue business as usual.

¹ The latest data available on the University's website is 1992 – 2000 rates; http://www.academic.umn.edu/accountability/reports/graduation_rates_tc.html.

² See guidelines for Deans' Review of Task Force Recommendations.

At the beginning of our work, we established the following foundational principles to guide us, and we strongly believe that they must also guide the University's educational mission:

- **Put our students first.** In developing strategies to promote student success, considerations of cost, impact on faculty, staff, or administrative structures, etc., must be secondary to whether a strategy is important for supporting and improving student success. The recommendations in this report are those we consider to be essential for developing and practicing an approach to undergraduate education that focuses on objectives and outcomes while retaining the University's responsibility to challenge students.³ Such approaches are commonly referred to as "student- or learner-centered."⁴
- **Embrace the critical value and importance of diversity to guide policies and strategies that promote student success at the University.** It is essential to attract and retain a student body that reflects the changing demographics of the Twin Cities metropolitan area and the State of Minnesota, including growing immigrant and refugee populations, students of color, students with diverse religious and ethnic heritages, and students with disabilities.⁵ Diversity benefits everyone.⁶
- **Provide an education that is, itself, based on research and scholarship.** We cannot base our educational approaches and strategies on anecdotes, but instead on what is known from research about student learning and success in general, as well as University data regarding the success of our own students. The University of Minnesota must place itself at the forefront of scholarship in this critical research arena.⁷

³ An article that highlights the outstanding medical services provided by the University of Minnesota's Cystic Fibrosis Clinic was important in helping us frame this principle. ("The Bell Curve" by Atul Gawande in *The New Yorker*, 2004.)

⁴ See <http://www.adt.umn.edu/rfaculty.html#student> for a statement from Lou Pignolet (Chemistry) about his student-centered teaching practices; also <http://www.colorado.edu/sacs/stu-affairs/centered/concept.html> for a statement from the University of Colorado that provides their definition of a "student-centered culture."

⁵ Mills-Novoa, A., & Poch R. Position Paper: "Undergraduate enrollment at the crossroads: A strategy reconsidered" (August 2004.)

⁶ Blimling, G.S. (2001). Diversity makes you smarter. *Journal of College Student Development*, 42, 517-519; Gurin, P., Dey, E. Hurtado, S., Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review*, 72, 330-366; Milem, J. F., & Hakuta, K. (2000). *The benefits of racial and ethnic diversity in higher education*. Washington, DC: American Council on Education; Smith, D. G., & Schonfeld, N. B. (2000). The benefits of diversity: What the research tells us. *About Campus*, 5(5), 16-23.

⁷ Some of our faculty have developed national leadership in certain areas of the scholarship of teaching. For example, see: Johnson, D.W., Johnson, R.T., and Smith, K.A. 1998. *Active learning: Cooperation in the college classroom* (Second Edition). Edina, MN: Interaction Book Company; Wambach, C., & Brothen, T. (2005). Counseling psychology and the General College: An implementation of the Minnesota point of view. In J. L. Higbee, D. B. Lundell, & D. R. Arendale (Eds.), *The General College vision: Integrating intellectual growth, multicultural perspectives, and student development* (pp. 61-82). However, we need a more coherent, intentional, and focused effort in order to leverage this leadership for maximal impact on our students and the University.

Recognize that student success is a shared responsibility of the University community. Because learning occurs wherever students are, whether inside or outside of the classroom, all University employees, as well as the students themselves, share responsibility for student success.

In addition to the above principles, the Task Force committed itself to consult extensively with University stakeholders in order to develop the recommendations that were most imperative for improving student success. The Student Support Task Force solicited advice and perspectives of faculty, staff, students, and alumni through town hall meetings, focus groups, interviews of individuals at our weekly meetings, attendance at regularly scheduled meetings of stakeholder groups, informal meetings, and email. As a result, we obtained input from more than 250 individuals representing different stakeholders on the Twin Cities campus (see Appendix 2). A summary of these discussions, together with formal correspondence to the SSTF, and feedback received during the public comment period is provided in Appendices 3, 4 and 5 respectively.

Deliverables⁸ and Student Support Task Force Recommendations

Recommendations regarding providing appropriate support to students at all levels of achievement

Recommendation 1: Establish campus-wide learning and student success outcomes and coordinate undergraduate student support programs and resources to achieve these outcomes.

Recommendation 2: Develop a department, program, or institute in which faculty and staff research focuses on the scholarship of college student success, including pedagogy and student development.

Recommendations regarding models of academic and career advising that ensure improved retention and graduation rates and better student outcomes

Recommendation 3: Invest in and strengthen academic advising and career services across the campus.

Recommendation 4: Develop a campus-wide communications plan that intentionally and consistently conveys the University's goals, expectations, and resources for undergraduate student success.

Recommendations regarding enhancing the role of faculty as student mentors

Recommendation 5: Require all undergraduate students, by the time they graduate, to complete a mentored scholarly, creative, professional, or research experience.

Recommendation 6: Develop programs for all new faculty and instructional staff that focus on outcomes-based learning and pedagogy, high expectations for students, and mentorship.

⁸ Specified by Provost Sullivan in charge letter to the Task Force. See Appendix 1.

I. Recommendations Regarding Providing Appropriate Support to Students at All Levels of Achievement

As the SSTF members consulted with University faculty, staff, students, and alumni, examined scholarly research, and discussed our charges from our individual perspectives, we reached the consensus view that undergraduate education and services at the University of Minnesota must be grounded in research and scholarship, including a comprehensive approach to assessment and accountability.

Recommendation 1: Establish campus-wide learning and student success outcomes and coordinate undergraduate student support programs and resources to achieve these outcomes.

To deliver an excellent undergraduate education, we must develop an outcomes-driven, student-centered approach to all aspects of our interactions with students. Thus, we must begin by defining measurable and meaningful outcomes for our students. Our curricula, classes, support programs, and resources for students should be organized and coordinated in a manner that will ensure accountability for achieving these outcomes.

We recommend that the offices of the vice provosts whose responsibilities include aspects of undergraduate education collaborate with one another and, in an appropriately consultative manner, develop University-wide student learning and success outcomes. The Council on Enhancing Student Learning's Student Learning Outcomes and the Office for Student Affairs' Student Success Outcomes provide an excellent starting point from which to begin (see Appendix 6.) Once University-wide outcomes are defined, the vice provosts should invest the necessary resources to gather ongoing assessment data concerning the effectiveness of all aspects of undergraduate education, including support and services. Together with data relevant to other facets of the University's mission, this assessment plan and resulting data should drive the University's decisions about funding, continuation of current programs, development of new programs, assignment of space, new construction, hiring, and other resources. The vice provosts should be given sufficient authority to also establish campus-wide coordination of student support programs and resources in a manner that will ensure accountability. They should also provide the core leadership, resources, oversight, and support needed to achieve the other recommendations outlined in this report.

We recommend that the vice provosts:

- Strengthen and enrich the interaction between academic, student support, and co-curricular functions and work to eliminate artificial barriers between learning within and outside the classroom to create a seamless, synergistic student experience at the University. Currently the coordination and interactions among University of Minnesota student and academic affairs⁹ and other support units, (e.g. writing centers, mathematics and science tutoring programs, computer assistance, library assistance, One-Stop, etc) are insufficiently integrated. As a result, "the whole" of our worthwhile activities is less than

⁹ See *Learning Reconsidered* for discussions of the importance of integrating the entire student experience to maximize student learning and success: http://www.naspa.org/membership/leader_ex_pdf/lr_long.pdf.

the sum of its parts, and the array of services available is not readily understood by students, faculty, or staff.

- Ensure that data gathered on University undergraduates is appropriately integrated, communicated, analyzed, and used to enhance the effectiveness of our programs for students;
- Require each unit on campus to articulate how its interactions with students help to achieve these outcomes and determine appropriate mechanisms for accountability;
- Coordinate and advance scholarships and student employment policies that decrease the financial burdens on students and their families.
- Ensure a welcoming learning environment, strong academic support networks, and effective instructional design¹⁰ for all students including those from populations traditionally underserved in higher education, such as students of color, students who are recent immigrants, students from low-income families, student parents, students who represent the first generation of their families to attend college, non-traditional students, and students with disabilities. Strategies include:
 - Expanding the SMART Learning Commons model to develop and oversee (in partnership with the University Libraries, Multicultural Center for Academic Excellence, and writing centers) visible, branded learning centers that are inviting, easy to find, and include access to food services;
 - Ensuring that known research data on student success is put into practice within the physical structure of the campus;¹¹
 - Strengthening existing or developing new University of Minnesota traditions that celebrate achievement and build community and connections;¹²
 - Promoting a practice of using assessments of individual student development to guide teaching, advising, and student support;
 - Investing additional resources to provide integrated, sustained support for the first college year of freshmen and transfer students. This investment should include implementing Welcome Week, a program that would provide a common experience to help all new students adjust to campus life and understand what it means to be a member of the University community, as well as other strategies such as additional freshman seminars and first-year experience courses.

¹⁰ A documented model of an effective instructional approach is Universal Instructional Design (Higbee, 2003.)

¹¹ For example: ensuring that new buildings include informal spaces for students to gather and developing new on-campus housing that includes private bedrooms and other amenities to increase the number of students living on or near campus.

¹² For example, one tradition might be a “Research, Scholarship, and Creative Expression Day” in which classes are not scheduled so that students and faculty could, instead, attend a variety of research seminars and participate in a University-wide symposium featuring undergraduate research, scholarship, and creative projects.

Recommendation 2: Develop a department, program, or institute in which faculty and staff research focuses on the scholarship of college student success, including pedagogy and student development.

A compelling way to improve undergraduate education would be to devote intense, scholarly approaches to identify and implement strategies that maximize academic and personal success for all students. Having one of the largest undergraduate student bodies in the nation makes our campus a unique “laboratory” in which to carry out this work. Thus, we recommend that the University develop a new department, program, or institute whose faculty and staff maintain a research focus on undergraduate teaching, learning, development, and support. At a minimum, this department/program/institute should serve as the focus for developing successful, innovative pedagogies for introductory, “high-risk” courses, including those in math and science.¹³

This unit would be responsible for training teaching assistants for these courses and coordinating, delivering, and assessing supplemental instruction and enrichment opportunities. In addition, this unit would help to identify best practices in developing intentional and effective co-curricular programs. Tenure and promotion decisions for faculty and staff in this department/program/institute should be based on research productivity (publications, grants, seminars, student mentoring, outreach, etc.) in the discipline of undergraduate teaching and learning. We consider the History of Science Department and the Center for Research on Developmental Education and Urban Literacy as potential models for this unit.

We do not envision this unit as synonymous with the new department in the College of Education and Human Development made up of former General College (GC) faculty and staff. However, many GC faculty and staff would have important contributions in this area and may develop affiliations with this new unit. Instead, this unit must include faculty from a variety of disciplines, including math, chemistry, biology, psychology, and other programs responsible for “gateway” courses, many of which currently have high risks of and consequences for student failure. We also recognize that the Center for Teaching and Learning Services and the Academy of Distinguished Teachers should play pivotal roles in establishing this unit and in its administration.

Arguably, this recommendation is the most innovative of those put forward by the Task Force. Implementing it would catapult the University of Minnesota to the forefront of an emerging field with many funding opportunities. Thus, developing a department/program/institute for college teaching, learning, and student success would have important positive impacts on our students’ success, as well as on the status of our research programs, funding, and prestige.

¹³ The Writing Task Force has recommended a similar unit for pedagogy in writing and critical thinking. We think that one department/center could serve the needs identified by both task forces. Note that these introductory courses are typically large courses with high failure rates that affect a student’s ability to pursue a broad range of majors and ultimately, careers. Thus improving the educational quality of these courses would have major impact on overall student success. See: <http://www1.umn.edu/ohr/img/assets/18004/bush0407.pdf>

II. Recommendations Concerning Academic and Career Advising

Academic advising, student support services, and career services at the University of Minnesota continue to vary widely from college to college.¹⁴ Such variation is confusing at best and destructive at worst, since the variations do not necessarily reflect best practices but instead result from historical precedent or other expediencies. At a minimum, students who transfer within the University should be able to count on a basic level and range of services. Instead, they are frustrated by the inequities across the undergraduate colleges. Similarly, academic advisers and career counselors express frustration with current University systems (or lack thereof) as well as with inconsistencies in resources allocated to service delivery across the University, including the number of advisers and their expected advisee load, and the fact that some colleges have no means to deliver career services to their students. Our recommendations address these issues at multiple levels.

Recommendation 3: Invest in and strengthen academic advising and career services across the campus.

Academic advising is an important part of the undergraduate student experience. In fact, “Good advising may be the single most underestimated characteristic of a successful college experience.”¹⁵ Advisers help students navigate their way through college life from their beginning as new freshmen until the final year, culminating in senior projects or internships and graduation. Richard J. Light spent 10 years interviewing successful Harvard University students in an attempt to understand the components that comprise a successful college experience. One of his primary findings concerning academic advising is the importance of qualified, professional academic advisers.

The Task Force recommends that the University implement a University-wide academic advising model with professional advisers who work with students at the department/collegiate level. Academic advising is most effective when it is delivered in the colleges and departments where advisers and students have close connections to both the faculty and their academic disciplines.

The Task Force recommends that the University and its colleges:

- Develop a collaboratively agreed upon set of expectations and standards for advising, including qualifications for advisers so that, regardless of college, students can be assured of receiving consistent advising. The Council on Enhancing Student Learning Advising Outcomes can be used as a starting point for this effort (see Appendix 7).
- Invest in additional advising lines so that each college has sufficient advising capacity to enable all students to meet with their professional adviser when they need to or minimally once each semester.¹⁶

¹⁴ The Task Force is gathering information from each undergraduate college and is providing a separate matrix of collegiate advising and career services that will be shared with the Provost's Office and colleagues when completed.

¹⁵ Light, R.J. 2001. *Making the Most of College: Students Speak Their Minds*. Harvard University Press, Cambridge, Mass. p. 81.

¹⁶ According to the 2005 University of Minnesota Senior Exit Survey 79.4% of students say it is important or very important to be able to meet with their adviser within 1-2 days of calling for an appointment.

- Ensure that all professional advisers have an advising load that allows them to take ownership for the success of their advisees. They should have sufficient time to monitor student progress and to develop meaningful relationships with their advisees.¹⁷
- Charge the Academic Advising Network, with leadership from the Provost's Office, to develop a required, centralized training program for academic advisers and career counselors. Although this training would not replace collegiate- and department-specific training, it would create a common culture within the University advising community and encourage connection, collaboration, and consistency across career services and advising units.
- Establish an Academy of Distinguished Academic Advisers, parallel to the Academy of Distinguished Teachers. This Academy should participate in developing the training program for advisers and career counselors.
- Develop a plan to evaluate and reward advising and career counseling professionals in a consistent manner across the University using University-wide standards and expectations. This review should also address compensation inconsistencies and inadequacies so that excellent, committed, and diverse advisers are retained, enabling more students to have the same adviser for their entire undergraduate tenure.
- Implement a shared model of academic and career advising based on assessments that measure student development in areas known to affect retention, such as academic autonomy, self-efficacy, learning styles, and career and life planning,¹⁸
- Require mandatory advising appointments each semester for all freshmen and first-year transfer students, and yearly appointments for all other students.
- Ensure that staff providing academic advising and career services have adequate facilities in which to meet their students so that the student's privacy is guaranteed and the student feels welcomed.¹⁹
- Add career counseling lines as necessary to minimize inequities between services available to students in various programs and colleges.
- Charge the Career Development Network, with leadership from the Provost's Office, to develop a plan for coordinating career services²⁰ across the University and ensure that

¹⁷ According to the Council for the Advancement of Standards in Higher Education's (CAS) Standards and Guidelines for Academic Advising Programs, "Individual academic advising conferences must be available to students each academic term....academic advising caseloads must be consistent with the time required for effective performance of this activity. When determining workloads it should be recognized that advisers may work with students not officially assigned to them and that contacts regarding advising may extend beyond direct contact with the student" (p. 27).

¹⁸ Higbee, J. L., & Thomas, P. V. (2000). Creating assessment tools to determine student needs. *Research and Teaching in Developmental Education*, 16(2), 83-87.

¹⁹ The nature of advising and counseling relationship entails discussing many private issues relating to academic performance, personal and family situations, financial issues, mental health concerns, and other confidential topics. Private office space for advisers encourages students to openly discuss these sensitive issues, fostering a deeper adviser-advisee relationship and enhancing students' overall academic experience at the University.

career development appropriately interfaces with undergraduate academic advising and the academic curriculum.

- Establish a center that provides advising and support services for students from any college who are exploring majors and career/life goals, making transitions between colleges, or who need general “just-in-time” advising and effective referrals in a central location. The intent of this center is not to diminish the connection between students and their advisers, but to offer assistance to those students who might otherwise fall through the cracks. This center might also include other student support services such as One Stop, the Multicultural Center for Academic Excellence, the Learning Abroad Center, other student engagement initiatives, and the academic support and career services functions of the University Counseling and Consulting Services.

Recommendation 4: Develop a campus-wide communications plan that intentionally and consistently conveys the University’s goals, expectations, and resources for undergraduate student success.

The University needs to communicate a clear and consistent message about what it means to be a student at the University of Minnesota. How and what we communicate to students, from the time they first hear our messages as middle or high school students, through all phases of the recruitment and admissions process, to their time on campus and finally as alumni, needs to be coordinated, well-crafted, and intentional. All members of the University community (students, faculty, staff, and alumni) should be able to articulate the University’s academic and student developmental goals and expectations for undergraduates.

Consequently, we recommend that the University:

- Develop and implement a University-wide undergraduate experience communications plan that:
 - provides clear and consistent messages to students regarding academic and personal development expectations (e.g., time to graduation, credit loads, co-curricular participation, civic engagement, international experience, career planning, student employment, and student behavior);
 - guides all communication with undergraduates, whether delivered in person, electronically, or via print, from the first contact as a prospective student through timely graduation and beyond;
 - introduces students to, develops, and strengthens the traditions and hallmarks of the University of Minnesota.
- Develop a training module for all new University employees to familiarize them with the University’s expectations for undergraduates and the role that each employee can play in meeting those expectations.
- Adopt an electronic recordkeeping system that tracks undergraduate student advising/services contacts for all University advising, career, study abroad, and other student support services professionals. Such a system would support advising

²⁰ The St. Paul Campus Career Center would be a useful model for this analysis.

effectiveness regardless of the complex pathways students take while they are at the University, but also facilitate assessment of programs.

IV. Recommendations Concerning Faculty Mentoring

Greater student success happens at universities that promote rich and meaningful interactions between students and faculty. For example, research on experiences that promote student retention and graduation point to the key role that student-faculty relationships play in student success (see Appendix 8.) Of course, many University staff members also develop meaningful mentoring relationships with students and we acknowledge the key roles they play in student success.

Recommendation 5: Require all undergraduate students, by the time they graduate, to complete a mentored scholarly, creative, professional, or research experience.

Considerable evidence indicates that, in addition to providing a unique educational opportunity characteristic of a research university, engaging in mentored scholarship has significant positive impact on student retention and graduation.²¹ A recent report on the Undergraduate Research Opportunity Program (UROP) found that engaging in a UROP project produced a strongly positive impact on graduation rates.²² Based on these University and national results, we recommend that the University provides every undergraduate, at least for one semester during their tenure at the University, with the opportunity to engage in scholarly work under the mentorship of a University of Minnesota faculty or staff member.²³ A minimal hallmark of a substantive relationship is that it would provide sufficient knowledge of the student's skills and potential that the mentor could confidently write a recommendation letter on the student's behalf.

Our definition of "scholarly work" is broad, and might include mentored experiences such as: undergraduate teaching assistantships and peer mentoring; work on college publications or events; leadership experiences, including serving on university, college, departmental, and other committees; employment on campus related to scholarly work; participation in formal mentoring programs; senior or honors capstone projects, service learning; civic engagement activities; internships on- and off-campus; coursework involving scholarly projects; study abroad or elsewhere in the US; and directed study or research. The key feature of this experience is development of a substantive academic, creative, scholarly, and/or professional relationship

²¹ For example, see: Amy E.L. Barlow, M.V. 2004. Making a difference for minorities: Evaluation of an educational enrichment program. *Journal of Research in Science Teaching*. 41:861-881; Boyer Commission. 1998. Reinventing Undergraduate Education: A Blueprint for America's Research Universities. S.S. Kenny, editor. Carnegie Foundation for the Advancement of Teaching, Nagda, B.A., S.R. Gregerman, J. Jonides, W. von Hippel, and J.S. Lerner. 1998. Undergraduate Student-Faculty Research Partnerships Affect Student Retention. *Rev. Higher Ed.* 22:55-72.

²² For example, for the less academically prepared students at the University, participation in a research experience nearly double the 4- and 5-year graduation rates (see Appendix 9).

²³ We recognize that such mentoring experiences can also include U of M professional staff, graduate students, postdoctoral fellows, administrators, alumni and other appropriate individuals. However, based on simple averages of the numbers of graduating seniors and of tenure-track faculty, if only faculty mentorships were considered, this recommendation would require each faculty member to work with approximately 1 student for 1 semester per year.

between the student and mentor, ideally connected to the mentor's own research, service, teaching, and professional interests and expertise.²⁴

To move toward achieving this goal, we recommend:

- Additional investment in and promotion of programs that support student scholarship and promote mentored relationships, including the Undergraduate Research Opportunities Program (UROP) and UROP Scholars program, the Multicultural Summer Research Opportunity, the Ronald E. McNair Post-baccalaureate Achievement Program, and similar programs.
- Charging colleges and programs with developing appropriate scholarly experiences for undergraduates who do not pursue a UROP, MSROP, McNair, directed research, or similar project. These experiences, which could be integrated into course curricula, should provide a framework for mentorship that goes beyond routine interactions, and is of sufficient quality and duration to enable the mentor to develop a significant professional relationship with the student.

Although this recommendation recognizes that students can develop an intensive mentored relationship with many different University personnel, we emphasize that *every faculty member* at the University of Minnesota should be expected to provide such opportunities for students. Thus, faculty hiring, promotion, tenure, and post-tenure review should include the expectation of high-quality interactions with undergraduates.

Recommendation 6: Develop programs for all new faculty and instructional staff that focus on outcomes-based learning and pedagogy, high expectations for students, and mentorship.

We cannot be an excellent research university unless we provide our students with a truly exceptional education. Achieving this goal requires that we further develop a culture at the University of Minnesota that focuses on student learning outcomes, high expectations, and effective mentoring. As at other research universities, many new faculty arrive at the University with little skill or experience in teaching or mentoring, each of which is critical to both student and faculty success. A substantive, re-envisioned faculty orientation program would introduce new faculty to our students, to our educational goals and expectations, to our culture and traditions, to advising, career, and student support resources, and to programs and strategies that promote teaching scholarship. It would also help new faculty begin to develop their own teaching and mentoring skills, providing a valuable addition to the successful programs offered by the Center for Teaching and Learning Services for more seasoned faculty (Early and Mid-Career Teaching Programs and the Senior Teaching Fellow Program, Mid-Career, and Advanced Career program.) We envision a week-long²⁵ orientation program that would provide

²⁴ The Academy of Distinguished Teachers included a similar recommendation in their letter to the SSTF; see Appendix 4.

²⁵ We believe that faculty orientation to the University and to our teaching, research, and service mission is no less important than that of new freshmen and transfer students as envisioned in Welcome Week.

foundational experiences for new faculty, as well as opportunities to interact with University leaders, distinguished teachers and researchers, students, and advisers, and one another.²⁶

Broader themes outside scope of task force inquiry and recommended future areas of effort

The SSTF endeavored to locate and evaluate previous University of Minnesota reports that were applicable to our work. However, we cannot be certain that we identified all of the relevant work previously done by faculty, staff, and students that might have informed our current work and provided historical precedents. This limitation prevented us from being confident that we were able to build as effectively as possible on the analyses, insights, and creativity that had been previously completed before we began our own work. To help ensure the continued relevance of University studies and reports, we urge that the University develop a centralized Web-based repository of reports from task forces and other committees. It seems reasonable that the University Libraries would be the curator of this important resource. In addition, data relating to the undergraduate experience was similarly difficult to locate and access. In fact, it was not possible even to determine what survey data existed or which new surveys were in the planning stages. The University would greatly benefit from a thorough coordination and transparency of data gathering, analysis, and dissemination.

²⁶ We recognize that similar orientation programs should be developed for all individuals who teach students, including TAs, instructors, and adjunct faculty.

V. Relationship of Recommendations to Five Action Areas

	<i>Recruit, educate, challenge, & graduate outstanding students</i>	<i>Recruit, mentor, reward, and retain outstanding faculty & staff</i>	<i>Promote an organizational culture committed to excellence & responsive to change</i>	<i>Enhance and effectively utilize our resources & infrastructure</i>	<i>Communicate with our constituencies & practice public engagement</i>
Establish campus-wide learning and student success outcomes and coordinate undergraduate student support programs and resources to achieve these outcomes.	X		X	X	X
Develop a department, program, or institute in which faculty and staff research focuses on the scholarship of college student success, including pedagogy and student development.	X	X	X		
Invest in and strengthen advising and career services across the campus.	X		X	X	
Develop a campus-wide communications plan that intentionally and consistently conveys the University's goals, expectations, and resources for undergraduate student success.	X		X	X	X
Require all undergraduate students, by the time they graduate, to complete a mentored scholarly, creative, professional, or research experience.	X	X			X
Develop programs for all new faculty and instructional staff that focus on outcomes-based learning and pedagogy, high expectations for students, and mentorship.	X	X	X		

List of Appendices

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- Appendix 9: Undergraduate Research Task Force Report

Appendix 1: Provost's Charge Letter to Task Force

September 15, 2005

TO: *Provost's Academic Task Force on Undergraduate Reform: Student Support*
Kate Maple, *Co-chair*, Assistant Dean for Student Services, CHE
Robin Wright, *Co-chair*, Associate Dean for Faculty & Academic Affairs, and Professor,
Department of Genetics, Cell Biology & Development, Medical School/CBS
Carl Brandt, Director, Career and Community Learning Center, CLA
Jeanne Higbee, Professor, General College
John Jochman, Undergraduate Student and Peer Advisor, CLA-Honors Division
Dan Kelliher, Associate Professor, Political Science, CLA
Mary Maus Kosir, Assistant Dean for Undergraduate Programs, CSOM
Alon McCormick, Professor, Department of Chemical Engineering & Materials Science, IT
Parker Schultz, Undergraduate Student, CSOM
Patrick Troup, Director, Multicultural Center for Academic Excellence, Office for
Multicultural & Academic Affairs

FROM: E. Thomas Sullivan, Senior Vice President for Academic Affairs and Provost

RE: Provost's Charge to Task Force on Undergraduate Reform: Student Support

Thank you for agreeing to serve on the academic strategic positioning Task Force on Undergraduate Reform: Student Support, under the leadership of co-chairs, Kate Maple and Robin Wright. The efforts of this task force will be critical to the overall success of the University's transformative strategic positioning effort.

Attached are documents that, taken together, comprise the charge to your task force.

- Attachment A contains an articulation of the University's overall goal and assigns to the task force the responsibility of retaining an "eye on the prize." Each of the issues identified in Attachment A, which is part of the charge of every task force, must be addressed.
- Attachment B contains criteria to be addressed by each task force. These criteria are drawn from the action strategies identified in the strategic positioning report *Advancing the Public Good: Securing the University's Leadership Position in the 21st Century* (February 2005). It is critical that each task force consider how its work can further each of the five broad action strategies.
- Attachment C contains the mission and deliverables specific to your task force, along with the date on which your task force report and recommendations are due.
- Attachment D contains the criteria for decision making, taken directly from the February strategic positioning report. Each task force should use these criteria as a framework for decision making.
- Attachment E contains a diagram of the process to be used by each task force. Note in particular the periods of required consultation with stakeholders.

There are a number of resources available to you as you pursue your charge. These include the professional staff member assigned specifically to assist your task force, the Resource Alignment

Team, a toolkit of documents and templates, and the professional staff of University Relations appointed to facilitate internal and external communication of progress through the strategic positioning process. The Resource Alignment Team is a consulting group charged with providing support to all task forces in the areas of cross-functional alignment, change management, and subject matter expertise as needed. Support also is available from the Steering Committee for your strategic area. Finally, Leanne Wirkkula has been appointed to serve as a liaison between the academic task forces and me. Leanne will be able to help task force co-chairs access needed support and assistance. Leanne may be reached at (612) 625-0563, wirkkula@umn.edu.

The success of your task force will depend upon creative, forward-looking thought that maintains constant focus on the broad goals for the institution as a whole rather than the self interest of particular individuals or groups. Your effort will require consultation with all potentially affected stakeholders, from deans to students and everyone in between. It will require dedication and persistence. And together with the work of the other task forces, it will help guide the University on our journey to become one of the top three public research universities in the world.

Thank you for accepting this important challenge. I look forward to meeting with you at the kick-off work session hosted by President Bruininks this Friday, September 16.

Attachments: 5

- c: Craig Swan, Vice Provost for Undergraduate Education
- Gerald Rinehart, Vice Provost for Student Affairs
- Amelious Whyte, Staff to the Task Force on Undergraduate Reform: Student Support
- Sharon Reich Paulsen, Assistant Vice President and Chief of Staff
- Leanne Wirkkula, Assistant to the Provost

Appendix 2: Student Support Task Force Consultation

Invited to Attend Task Force Meetings

Geoff Maruyama, Interim Associate Vice President, Office of Multicultural and Academic Affairs

Victor Bloomfield, Associate Vice President for Public Engagement

Wayne Sigler, Director of Admissions

Craig Swan, Vice Provost for Undergraduate Education

Laura Koch, Associate Vice Provost for First Year Programs

Sue Van Voorhis, Director, Office of Enrolled Student Services

Jerry Rinehart, Vice Provost for Student Affairs

Linda Ellinger, Assistant Vice Provost for Undergraduate Education

Arlene Carney, Vice Provost for Faculty and Academic Affairs

***Kari Branjord, Director, Web Development, Enterprise Applications Office (*Met with some three task force members*)

Regularly Scheduled Meeting Attended by Task Force Members

- CUD
- CSAA Collegiate Student Affairs Administrators
- Minnesota Student Association
- General College Student Services Staff

Town Hall Meetings

- AAN (Academic Advising Network)
- CDN (Career Development Network)
- Student Activities Advisors, Residence Hall Staff, Student Affairs Staff, Learning Center Staff, Learning Abroad Staff, OMAA Staff, Counselors and other Staff who support undergraduate student success (2 meetings)
- Alumni Association (Advocacy Committee)
- Students (2 meetings)

Small Group Discussions

- Undergraduates (2 meetings)

- Tate Award Winners/Academic Advising Network Members/Career Development Network Members
- Faculty and staff engaged in Undergraduate Research/ Academy of Distinguished Teachers/Morse Alumni Directors of Undergraduate Studies (2 meetings)

Interviews

<i>Interviewee</i>	<i>Title/Department</i>	<i>Interviewer</i>
General College Student Board		Jeanne Higbee
Bev Atkinson	Adviser English	John Jochman
Candelerio Zuniga	Diversity Coordinator, Carlson School of Management	Mary Maus Kosir
Jan O'Brien	Director, Student Services at CSOM	Mary Maus Kosir
Bob Ruekert	Associate Dean, UG at CSOM	Mary Maus Kosir
Peggy Mann Rinehart/Betty Benson	Disability Services	Kate Maple
Roseanne Duffee	Front Desk, CLA Social Sciences	Kate Maple
Nancy Walsh	CLA Communications Front Desk	Kate Maple
Josh Vande Venter	Front Desk, CLA Arts Community	
Frank Snowden	Director, APEXES	Alon McCormick
Laura Ericksen	IT Student Affairs	Alon McCormick
Ann Pineles	IT Lower Division	Alon McCormick
Pamela Drake	IT Honors	Alon McCormick
Assorted Directors of Undergraduate Studies in IT	David Frank, Math & UMPTYMP Jim Ramsey, Mech. Engineering	Alon McCormick
Peter Huddleston	Associate Dean, IT	Alon McCormick
Ken Keller	Humphrey Institute and Institute of Technology	Alon McCormick
Dan Delaney	OTR St Paul/One	Parker Schultz
Heather Peterson	Stop Counselor	
Residence Hall Association		Parker Schultz
Learning Abroad Center		Parker Schultz
	One Stop Counselor/Mpls	Parker Schultz
Victor Collins	Director, MLK Program	Patrick Troup
Carolyn Nayematsu	Senior Fellow, SEAM	Patrick Troup
Karen Williams	Libraries/Smart Commons	Patrick Troup

<i>Interviewee</i>	<i>Title/Department</i>	<i>Interviewer</i>
Karl Lorenz	COAFES/SMART Commons	Patrick Troup
Heidi Barajas	Associate Professor, General College	Carl Brandt and Jeanne Higbee
Chris Kearns	Assistant Dean Student Services, CLA	Carl Brandt, Jeanne Higbee
Bob Poch	Assistant Dean, General College	Carl Brandt & Jeanne Higbee
Terry Collins	Interim Dean, General College	Jeanne Higbee, Patrick Troup
MCAE Staff	MCAE	Patrick Troup
Paul Taylor	CLA Alumnus	Kate Maple, Carl Brandt
College of Human Ecology Undergraduate Program Chairs		

Appendix 3: Student Support Task Force Analysis of Emerging Themes from Initial Consultation Period

Based on initial consultation period through public meetings, interviews and focus groups, and formal correspondence, September–December 2005

Relative Ranking of Support

of times noted: 1-10 Low 11-20

Moderate above 20 Strong

Holistic Approach to Multiple Student Identities and Needs

30

Identify and direct student services delivery orientation toward multiple student cohort needs as well as diverse intra- and inter-student identities: student perception of UMN support in multiple contexts and aspects of self (Mosaic self). Includes first-year, non-traditional, remedial needs, transfer, undecided, high achieving, and international student cohorts. Major, academic year, career, curricular, and extra-curricular student contexts.

Collaboration/Integration/Centralization

28

Interdepartmental and cross-university collaboration, integration, and centralization should be used to promote increased communication, working relationships, common standards, and efficiency. Cross-university standards should be implemented in a variety of areas, including advising models and student access to resources. Student use of services and referrals should be tracked through a swipe card system.

Guidance/Prevention/Preparative Focus for Service Delivery

23

Create a service delivery model that prepares students for their developmental educational process, is an active guide, and takes a preventative rather than reactive response to problems. Increase accountability, transparency, and accessibility of university to students. Specifically, promote ease of access to documentation, posted student reviews of professors, and system accountability to students as university consumers. Change student perception of availability and access to services through increased and more effective communication strategies.

Adviser Support

22

Enhance long-term employment (i.e., decrease turnover) of advisers. Improve adviser commitment and quality of work through increased training, professional development, and salary. Evaluate workload ratio and increase respect and authority. Create welcoming and private physical advising environments. Explore the use of technology in advising and its implications on service delivery.

Relative Ranking of Support

of times noted: 1-10 *Low* 11-20
Moderate above 20 *Strong*

Career Counseling and Faculty Connections

11

Integrate services and increase connections between faculty, career counselors, and academic advisors. Integrate academic and career counseling programming, and develop mandatory career skills courses. Increase faculty mentoring, advising and contact with advisers, students, and career counselors.

Lower Advising Ratio

12

Lower adviser/student ratios for enhanced quality and availability of services; and to strengthen student/adviser relationships.

Advising Relationship

11

Promote stronger student/adviser relationships: increased interaction, trust, and connection. More focus on student advising and relationship; less on administrative details. Strategies include longer appointment times, clarification of adviser role, and restructuring the advising system.

First-year Focus: Academics and Early Connection of Students to University

9

Students must connect to services, cohort specific classes, and social opportunities within first 1-6 weeks: increase perception of support, validation, and connection to resources.

Advising Model Focus: Advisor Role

8

A call for an increased focus, clarification, restructuring, and exploration of the impact of the adviser role on student services.

Appendix 4: Formal Correspondence from Stakeholders

The Academy of Distinguished Teachers Twin Cities Steering Committee

November 23, 2005

MEMORANDUM

To: Task Forces on Undergraduate Reform – Honors & Student Support

From: The Academy of Distinguished Teachers Twin Cities Steering Committee

David Biesboer, CBS

Vern Cardwell, COAFES

Art Erdman, IT

Jay Hatch, GC, TCSC Chair

Laura Coffin Koch, GC/SVPP

Judith Martin, CLA

James Rothenberger, Public Health

Leslie Schiff, Medical School

Karl Smith, IT

Subject: Undergraduate Research Experiences

We write to share the collective thoughts of members of the Academy of Distinguished Teachers Twin Cities Steering Committee (TCSC) with respect to the need for undergraduate research experiences. The TCSC recommends that the University dramatically increase opportunities for undergraduate research experiences across campus. The university claims an advantage over most other colleges and universities in the five-state region that students will be taught by and “rub shoulders” with leading-edge researchers in all majors. Only a small percentage of our undergraduates, however, have research experiences while they are at the University of Minnesota. We highly recommend a significant increase in funding and opportunity for UROPs.

We believe more support and resources for undergraduate research opportunities is appropriate across the four, including Rochester, campuses.

The undergraduate experience needs to be one that is engaged, in part, in scholarly activity, where there is the mentored project with a faculty member, graduate students, postdoctoral fellows, etc. so that students have a true sense of being involved in cutting-edge research of an independent nature. UROP experiences are a relatively inexpensive way to connect undergraduates in a *meaningful way* to a research university. In addition, these research experiences for undergraduates help faculty and graduate students augment their research teams and perhaps help increase interest of the undergraduates in graduate or professional studies.

The TCSC also recommends that faculty who take on a student, whether for a UROP or for some other mentored research experience, receive a token stipend (\$500.00) that can be used in any manner by the faculty member (i.e., professional development, equipment, or resources). Also, we are concerned about the current policy, for students receiving financial aid, in which the receipt of a UROP award results in the loss of other kinds of financial aid the student is receiving.

The Academy of Distinguished Teachers Twin Cities Steering Committee feels strongly that a central part of the undergraduate experience at the University of Minnesota ought to be a research-type experience. We would be happy to meet with members of any of the Undergraduate Reform Task Forces to discuss this further. Thank you for considering our feedback.

C: Arlene Carney, Vice Provost for Faculty and Academic Affairs

Laura Coffin Koch, Associate Vice Provost for First Year Programs

November 3, 2005

TO: Kate Maple, Assistant Dean, College of Human Ecology
Robin Wright, Associate Dean, College of Biological Sciences

FROM: Laura Coffin Koch, Associate Vice Provost for First Year Programs

SUBJECT: Welcome Week

I write to you in your capacity as chairs of the Student Services Task Force. As you may recall, in spring 2004, we proposed and began planning for a required program for all new first year, first time students on the Twin Cities Campus called Welcome Week. This program would run from the Wednesday prior to Labor Day through Labor Day each fall term and would include:

- academic support programs,
- community-building activities for both residential and commuter students, and
- social events.

The goals of Welcome Week were to:

- provide a common experience to help all first year students adjust to campus life,
- help students discover the multitude of academic and support resources available at the University,
- enable students to develop academic skills necessary for a successful first year experience,
- help students understand what it means to be a member of the University of Minnesota community, and
- begin the process of making important connections with the University's faculty and staff.

The overarching aims of Welcome Week were to increase student retention and satisfaction as well as build a sense of community and strengthen students' identity to the University and their individual colleges, with the ultimate goal of increased graduation rates. To this end, on-going evaluation and assessment would need be key elements of Welcome Week.

Discussions and planning of Welcome Week took place over an 18 month period and involved personnel from numerous units on campus, including essential representation from all of the eight freshman admitting colleges. Among those units that have already agreed to support and participate in Welcome Week are:

- Housing and Residential Life
- University Dining Services
- Office of Student Affairs (TC Unions, Rec. Sports, Student Activities Office, etc.)
- University Libraries
- Learning Abroad Center
- Intercollegiate Athletics
- Office of Multicultural Affairs
- Orientation and First Year Programs

I would hope that in your deliberations of how the University supports students in their academic success, you would consider a program such as Welcome Week in your recommendations. I would be happy to talk with you further about this.

Victor Collins, Director, Martin Luther King, Jr. Program

Advising: Students have often pointed out their dissatisfaction and difficulty experienced when they transfer from one major to another. There seems to be a number of operating models of advising currently in place at the university. Left unattended and/or unabated, this situation will only worsen with the expected changes anticipated in the imminent merger of several colleges into one.

One logical starting place is to identify the different *approaches* or *styles* of advising found at the university. The primary academic advising models or styles were delineated in a recent article in the National Academic Advising Association (NACADA) Journal (Vol. 24, Spring & Fall 2004). Crookston (1972/1994) describes a **prescriptive** advising model characterizing the relationship between the academic advisor and student as one in which the advisor is in control of the session and provides the student with advice. *O'Banion (1972/1994) talked about a **developmental** approach to advising, defined as an academic advising process with five dimensions: exploration of life goals, exploration of vocational goals, program choice, course choice, and course schedules.* Burton & Wellington (1998) suggested an **integrative** approach of advising whereby the "student stays at the center of the advising and learning experience and controls how much self-analysis occurs and how much he or she allows advisors, faculty members, and others to influence his or her choices." Lowenstein (1999) offered a **collaborative** advising model, which would create a collaboration between the academically centered advising approach (prescriptive) and the developmental approach, which is more focused on intra-personal growth. *Jeschke, Johnson & Williams (2001) advocate a more **intrusive** advising model whereby the advisor/student contact is not dependent upon student initiation. Advisors utilizing this model actively forge connections with students and build upon initial contacts to develop ongoing relationships with them.* Finally, Hemwall & Trachte (1999) developed an advising approach based on **praxis** because they believe in critical self-reflection and suggest that advisors should engage their advisees in dialogue about the purpose and meaning of course requirements.

It would be more congruent if the various advising units developed a degree of theoretical consistency throughout the university when they advise students. Moreover, it would help students if the advising models that they encounter were more coordinated, both in theory as well as style of service delivery. There are myriad ways that the delivery of academic advising services can be organized. Universities have adopted various models. Attached to this report is an article on advising and institutional culture that details different organizational models for academic advising (see attached NACADA article *Mission Impossible? Advising and Institutional Culture*). I personally believe that the advising style or model should be predicated on the entering profile of each student. Students arrive with very different levels of preparation and ability. We should do our best to match students with the advising model that is most suited for their developmental needs. In the advising program that I manage, the Martin Luther King Program in CLA, we utilize a combination of the *intrusive* and *developmental* advising styles (see highlighted areas above). The majority of our students are first generation and students of color. This advising model is more appropriately paired with their presenting profile and provides them with the best chance to be successful at this university.

I also believe that it is absolutely critical that training protocols be developed between the different university advising units that most often either refer or receive students to one another. One example is when students in the General College transfer to the College of Liberal Arts. The most common complaint voiced by students making this transition has been their dissatisfaction with the level of care

and concern and the perceived degree of inconsistency in the kind of academic advising experienced as they move from one college or department to another. We must strive to make this transitional experience as seamless as possible. We must also develop a better way to allow a student's advising history (including all advisor recommendations) and other relevant information to follow the student as they move from one department or college to another.

Finally, it is also quite clear that advisors throughout the university often function in woefully inadequate physical settings and carry far too large of a client load. Most advisors work out of cubicles. Cubicles never provide the level of privacy that is really optimal for doing this kind of work. The university should make it a priority to better support the ability of advisors to function more professionally. Many advisors greatly exceed the maximum advising load or capacity as prescribed by NACADA. That number should not exceed a 250 to 1 ratio. Many advisors have student case loads that more than double this recommendation. It is precisely the students whose needs are most acute that are most at risk of being underserved by this situation.

Submitted by:

L. Victor Collins
Director
MLK Program

Co-chairs of the System-wide Diversity Task Force

Dear Members of the Undergraduate Reform: Student Support Task Force:

The mission of the University of Minnesota Diversity Task Force is: (1) To formulate recommendations regarding how to reaffirm and deepen the University's commitment and capacity, system-wide, and across all campuses, collegiate units, and supporting units, to become a national leader in articulating, respecting, embracing, and supporting diversity among faculty, staff, and students; and, (2) to produce a report that will serve as a framework for the subsequent development of the University's system-wide diversity plan for all elements of the University.

To this end, we have been gathering and analyzing data on the University of Minnesota's efforts to support and advance diversity. We are examining these efforts in relation to model policies, programs, and other institutional efforts by educational institutions nationwide. Below is the working definition of diversity that we have formulated based on an environmental design framework which emphasizes diversity as an asset that can advance the institution's goals to become a national leader in this measure of excellence.

Diversity represents the full range of human difference and the potential for the advancement of knowledge and strengthening of our state and the University when race, ethnicity, gender, gender identity, sexual orientation, religion, disability, age, socioeconomic status, geography and citizenship status are fully embraced and supported. Diversity is about the University of Minnesota's competence, commitment, and success in supporting learning, working, and the social well-being of all members of the community (both internal and external), especially those who have been historically underrepresented or marginalized.

Our extensive consultative process, consisting of interviews and surveys of community leaders and university personnel in administrative leadership positions, as well as open forums and focus groups that have included participation by staff, students, and faculty, has yielded important insights regarding the need for strong leadership in this arena if the University's goal is to be reached. Moreover, while strong leadership is essential, it is not sufficient; rather, diversity must be a core institutional value that is integrated into every component of the University's activities for which we are all responsible and accountable.

The System-wide Diversity Task Force believes that if these goals are to be realized, consideration of diversity must be infused in the work of all relevant task forces that have the potential to support and enhance diversity. We are asking the Undergraduate Reform: Student Support Task Force to consider the above definition and share with us the specific strategies your task force may develop or propose that will support the advancement of diversity at the University of Minnesota. In particular, we recommend that you consider:

1. What best practices from General College that should be retained or leveraged to improve student support services institution-wide.
2. Strategies for incorporating universal design principles in all teaching, advising and student services to students.
3. How the resources of units within the Office of Multicultural and Academic Affairs (e.g., Multicultural Center for Academic Excellence, GLBT Programs Office, Disability Services and Office of University Women) can be used to improve student support in an integrated manner.

4. Strategies for improving the experience of diverse undergraduate [graduate] students so they feel more welcome, included and supported throughout their experience at the University of Minnesota.

5. Strategies for achieving university-wide accountability for services to diverse students to increase consistency in the experiences of diverse students in learning, working and social environments.

We would greatly appreciate a response at your earliest convenience, but no later than November 30, 2005, because the deadline for our task force report is December 10th. If you would like to confer with us on this matter, please feel free to contact us.

Thank you so much for your assistance and cooperation.

Sincerely yours,

Louis Mendoza

Co-Chairperson, Diversity Task Force

Chair, Department of Chicano Studies

Anne L. Taylor, MD

Co-Chairperson, Diversity Task Force

Professor of Medicine/Cardiology

David Weissbrodt

Co-Chairperson, Diversity Task Force

Regents Professor and Fredrikson & Byron Professor of Law



November 15, 2005

TO: Provost's Academic Task Force on Undergraduate Reform: Student Support

FROM: Gary Cooper, Jessica Krueger, Connie Tzenis, College of Agricultural, Food and
Environmental Sciences Student Learning Communities Committee

RE: Recommendations for Student Support Task Force

We are writing to share our recommendations for first year programs and retention with the Student Support Task Force. The College began using Student Learning Communities (SLC) during the 2002-2003 academic years. A preponderance of research studies conducted across the nation indicate that learning communities strengthen student retention and that both the students and teachers in learning communities say that their learning community experience is positive. In evaluations of our first two years our finding are in line with the national data; retention has increased and both faculty and students have strongly positive feelings about the initiative.

The definition of participating in the COAFES student learning community is a student who takes the FYE Seminar and at least one additional course from the suggested "courses-in-common."

The Student Learning Communities project and particularly the First-Year Experience Seminar were designed to achieve the following objectives:

- Create a "sense of belonging" for first-year students in the College;
- Assist students with decision-making regarding their choice of major and career direction, as well as other curricular and extra-curricular matters;
- Cultivate student confidence through an introduction to the University support services and through self-assessments and reflections on the strengths and talents they bring to the University experience.
- Provide a strong orientation to specific majors for first-year students.

NHS Freshmen to Sophomore SLC Retention Data		
	University Retention of SLC Students	University Retention of non SLC Students
Fall 2003 to Fall 2004	88%	83%
Fall 2004 to Fall 2005	95%	88%

The COAFES SLCs have also been very successful in increasing student-faculty contact. Faculty in the majors are invited to attend the First Experience Seminars in order to do such things as discuss expectations for the advisor-advisee relationships, discuss expectations for particular career paths, or to share some of their research with the freshmen. They are also invited to social events and retreats. In all three years of conducting student feedback sessions, students indicated unanimous satisfaction with the faculty-student contact. One student commented, "I have a friend that's a senior in CLA and we realized that I've had more contact with faculty in my first 8 weeks in school than he's had in over 3 years!" The seminars also include with some of the more mundane advising functions, e.g. planning your course schedule, understanding the APAS system, etc. in order to allow advisors to spend more of their one-on-one time with students in a mentoring capacity. In an on-line survey administered to all the students in the college each year, satisfaction with advising on a scale of 1-5 was 4.13 for SLC students, compared to 3.63 for the college as a whole.

As we become the new expanded college SLCs will be an integral part of recruitment, orientation, and retention. The SLC Instructors have already held joint meetings with the orientation/seminar instructors in CNR. As we continue to move forward, we will discuss how we will tie the seminars together. We are also working closely with the SMART Commons initiative in our joint effort to promote student success.

Please see the next sheet for more data from students who started fall 2004. If you would like more information please feel free to contact one of us:

Jessica Krueger
krueg051@umn.edu
612-625-9254

Gary Cooper
gcooper@apex.umn.edu
612-625-0213

Connie Tzenis
tzeni001@umn.edu
612-625-3330

New College team working on Student Learning Communities:

Ira Adelman, College of Natural Resources
Jim Anderson, Applied Plant Science
Patrice Bailey, Agricultural, Food and Environmental Education
Jay Bell, Environmental Science
Stephen Bratkovich, College of Natural Resources
Tom Burk, College of Natural Resources
Alan Ek, College of Natural Resources
Heather Fredrickson, St. Paul Campus Career Center
Bill Ganzlin, College of Natural Resources
Darrell Hartle, Agricultural, Food and Environmental Education
Bud Markhart, Environmental Horticulture
Vance Morey, Biosystems & Agricultural Engineering
Caitrin Mullan, Applied Plant Science, Environmental Horticulture, Environmental Science
Casey Nelson, Bio-based Products & Biosystems & Agricultural Engineering
Bob Pagel, Animal Science
Abel Ponce de Leon, Animal Science
Ingrid Schneider, College of Natural Resources
Dave Smith, Nutrition

Fall 2004 Data:

Figure 1: On a scale of 1 to 5, how would you rate your “sense of belonging” to College of Agricultural, Food and Environmental Sciences?

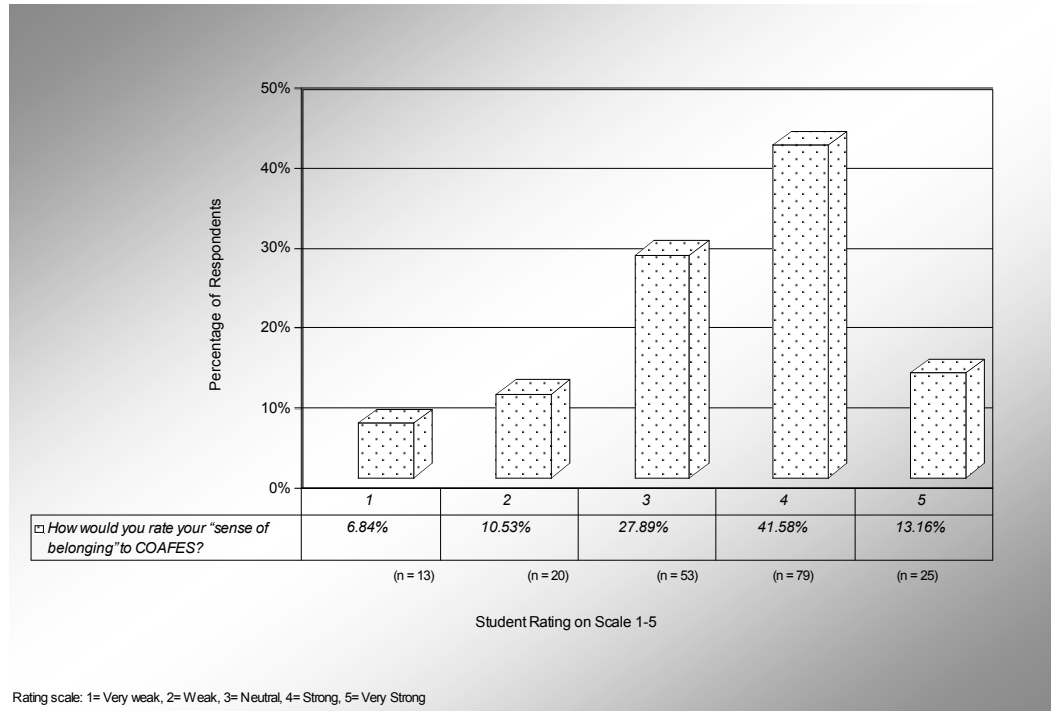
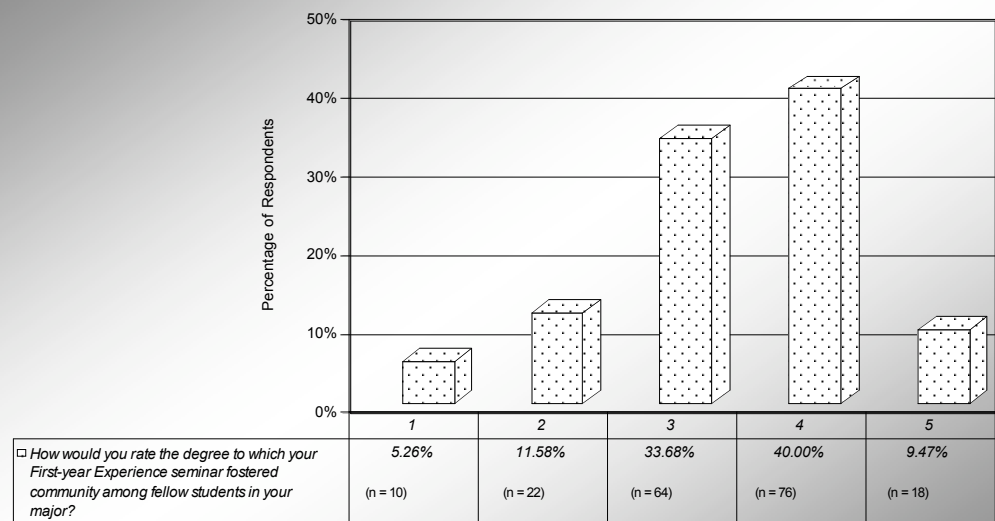


Figure 2: On a scale of 1 to 5, how would you rate the degree to which your First-year Experience Seminar fostered community among fellow students in your major?



□ How would you rate the degree to which your First-year Experience seminar fostered community among fellow students in your major?

Student Rating on Scale 1-5

Rating scale: 1= Very weak, 2= Weak, 3= Neutral, 4= Strong, 5= Very Strong

Student Support Task Force Executive Summary CDN Board Response

OVERALL REACTIONS

The members of the Career Development Network (CDN) had an overall positive reaction to much of the Student Support Task Force Executive Summary but felt that the document had a significant emphasis on academic advising. One way that this was present was through language used to describe career staff on campus. Most career professionals at the University of Minnesota consider themselves Career Counselors rather than Career Advisors. Many CDN members were uncomfortable with being referred to as advisors since we believe the roles of advisors and counselors are distinctly different.

The use of the title “Career Advisor” also caused some confusion while reading the report. When the document referred to advisors/advising, we were uncertain if the statement was intended to include career counselors. Clarification of this language throughout the document would more accurately describe our roles at the University as well as clarify some of the recommendations.

We feel compelled to mention that there are important distinctions in the roles and tasks of Career Counselors and Academic Advisors at the University of Minnesota and nationally. The nature of academic advising is developing relationships and sharing collegiate information and referrals so students make educated decisions about their educational paths. According to the National Academic Advising Association (NACADA), academic advisors work is intended to “assist students in the development of meaningful educational plans that are compatible with their life goals.”¹ At the University of Minnesota academic advising staff has a wide range of educational backgrounds.

Career Counseling as defined by the National Career Development Association (NCDA) is “the process of assisting individuals in the development of a life-career with focus on the definition of the worker role and how that role interacts with other life roles.”² Career counseling requires more specialized training and education as outlined in detail by NCDA. This training is reflected here on campus as most career counselors at the University of Minnesota have Master’s Degrees in Counseling, Student Personnel or a closely related field.

REACTIONS TO INDIVIDUAL RECOMMENDATIONS

Introduction

Page 3 – Section 2

“...suggest that the University Explores developing a centralized Web-based repository of reports from task forces and committees.”

We strongly support the concept of a centralized web-based information source. It is difficult to determine what research and surveys have already been done and it is also difficult to access and benefit from the work of University committees.

¹ See NACADA Academic Advising Program CAS Standards and Guidelines at http://www.nacada.ksu.edu/Clearinghouse/Research_Related/CASStandardsForAdvising.pdf

² See NCDA Career Counseling Competencies at <http://www.ncda.org/pdf/counselingcompetencies.pdf>

The Career Development Network does have a web based information resource system, www.career.umn.edu which could serve as a model for information sharing. Portions of this web site include campus-wide career information for employers and students, while a password protected section of the web site includes committee reports, meeting minutes and other documents of interest to CDN members.

II. Recommendations Regarding Providing Appropriate Support to Students at All Levels of Achievement

Recommendation 1, Paragraph 2

“...we recommend that the University develop an approach that will provide campus-wide coordination and ensure accountability for student support programs and functions.”

What does accountability mean? What was your vision exactly? What is meant by student support programs and functions? These statements were broad and left us uncertain of what was meant.

Recommendation 1, Bullet 1

“Strengthening and enriching the interaction between academic and student services functions.”

The CDN Board strongly supports this recommendation. We would like to point out that many career offices on campus do have a formalized system for collaborating with academic advising. In CLA, for example, every advising office has a career liaison who collaborates with the advisors to conduct presentations, hold career counselor office hours or to conduct programs as determined by student needs. They also have a referral form which advisors can use to refer students for career counseling. In the St. Paul Campus Career Center, similar liaison relationships exist. These liaisons work with individual staff and faculty advisors to update them on career issues and to discuss the needs of students. These relationships encourage and support bi-directional referral between advising and career staff as appropriate.

Recommendation 1, Bullet 2

“Ensuring a welcoming learning environment and strong academic support networks for students from populations traditionally underserved in higher education through the implementation of effective instructional approaches.”

The CDN Board strongly supports this goal for underserved and all students. Clarification on what this would look like would be valuable.

Recommendation 1, Bullet 3

“Strengthening existing or developing new University of Minnesota traditions that celebrate achievement and build community and connections.”

This recommendation seemed very unclear to us and we were uncertain how this would have a positive impact for student support on campus. Does research show that stronger traditions lead to better student support?

Recommendation 1, Bullet 6

“...build on freshmen seminars that we know produce positive outcomes, as well as develop new programs that will ensure success of students at other key junctures in their educational experience.”

We support this statement and believe that career development courses are currently meeting this objective by providing significant guidance to students at all academic levels on campus. For freshmen and sophomore students there are career exploration courses and for juniors and seniors career planning courses which provide positive outcomes for students.

Recommendation 2

We support the concept of a center for the scholarship of teaching and learning. We agree there is a great need for more research on undergraduate teaching and learning.

III. Recommendations Concerning Academic & Career Advising

Introductory Paragraph

“academic and career advisers express frustration with current University systems in place (or lack thereof) to reach students, as well as with inconsistencies and discrepancies in resources allocated to service delivery across the University, including number of advisers and their expected advisee load.”

We feel that this statement is very important and appreciated seeing this highlighted early in this section of the summary. Offices are expected to perform at the level of a “ideal” office on campus, but are not provided the resources to support such service levels. This leaves both students and staff feeling tremendously frustrated by inconsistent service levels and expectations.

Recommendation 3, Paragraph 1, Final Sentence

“One of his primary findings concerning academic advising is the importance of qualified, professional, academic advisors.”

As professionals we agreed with this statement and feel the University should be intentional about setting standards for *all* student support staff to ensure the staff is professional and qualified.

Recommendation 3, Paragraph 2, Sentence 1

“The Task Force agreed that professional academic advising should continue to be delivered in the colleges and departments where advisers and students have close connections to both the faculty and disciplines for which they are advising.”

It is important to point out that strong connections to faculty and disciplines are also critically valuable to career development work on campus. Career staff often tailor services, presentations and classroom visits to the needs of individual majors and collaborate with faculty to enhance/develop both student and employer relationships.

Being located in a college does not always lead to close connections with disciplines if faculty and staff do not have a desire or incentive to collaborate and communicate. Likewise, faculty and staff who have a desire to collaborate can do so even if not housed within a collegiate unit such as is the case with the St. Paul Campus Career Center.

Recommendation 3, Bullet 1

This bullet focused on the needs for individual advising appointments with freshmen and sophomore students, but we feel there is just as much need in regular advising appointments at the junior and senior level to ensure timely graduation and support as students transition out of the University.

Recommendation 3, Bullets 1 & 2

These two bullet statements only addressed academic advising student loads and we feel there is value at also looking at the staffing load of career counselors on campus. In many cases career staff are unable to conduct individual meetings with students which would greatly benefit student outcomes.

Recommendation 3, Bullet 3

We strongly support the recommendation that adequate facilities are necessary to preserve student privacy and to have the most honest, and therefore productive, communication between counselors, advisors and students.

Recommendation 3, Bullet 4

“Charge a group to examine potential strategies to regionalize career services and better integrate career development into undergraduate advising and curricula.”

The Career Development Network already has a sub-committee comprised of Jerry Rinehart and the undergraduate career services directors including Sara Nagel Newberg, St. Paul Campus Career Center; Paul Timmins, Career and Community Learning Center; Mark Sorenson-Wagner, Career Center for Science and Engineering; and Morgan Kinross-Wright, Business Career Center. This committee began meeting early in the fall to discuss how career services might be integrated into the new Classroom Science Building project and they continue to meet to discuss collaboration. The Career Development Network strongly believes that this pre-existing committee should be the core of the group charged to examine the regionalization of career services.

Recommendation 3, Bullet 4

“...better integrate career development and academic advising and curricula.”

This statement left us with many people to believe that a possible plan was to have 1 individual conduct both career counseling and academic advising with students. From talking with the Task Force, we now understand that this is not the case and feel that changing the wording to clarify would be valuable. The word “integrate” perhaps is what makes this unclear. The

Recommendation 4, Bullet 1

“Develop a required, centralized training program for academic and career advisers.”

Clarification on the type of training would be beneficial.

The Career Development Network is highly supportive of keeping new career counselor staff informed and we are committed to ongoing professional development for existing career counselors. The Career Development Network has recently created a Communications Committee and Recruitment Committee that are in the process of creating a new member handbook which explains the mission of the Career Development Network, how to access our documents online, meeting/committee details and centralized processes for events and software such as GoldPASS.

In addition, the Career Development Network has a Professional Development Committee that organizes monthly training sessions on topics central to the work of career counselors on campus. Past professional development sessions have included U of M Portal, Portfolio, leadership, federal employment, assessments and much more. Our vision has greater emphasis on ongoing professional development rather than entry training for new career staff.

Recommendation 4, Bullet 2

“Implement a shared model of academic and career advising based on assessments...”

We feel that assessment tools can provide tremendous value when working with students. At the same time, assessments are not to be used lightly and can easily be used incorrectly and unethically if not interpreted by a qualified professional. Many assessments such as the Strong Interest Inventory and Myers Briggs Type Indicator cannot be purchased/interpreted by someone unless they meet certain educational requirements. Should assessments be used widely on campus, significant efforts need to be taken to make sure they are used in an appropriate and ethical manner so they help rather than hinder/limit student development.

Recommendation 4, Bullet 3

We are very supportive of a review of the evaluation and reward system for academic advisors and career counselors across colleges. In many cases, salaries vary widely from college to college and the only way for many staff at the University to advance (or secure raises beyond standard yearly adjustments) is by changing positions which leads to significant turnover.

We also agree that a plan should be developed to evaluate and reward staff in a consistent manner across campus. We feel this evaluation should be holistic and comprehensive, assessing all aspects of a successful staff member including qualitative, not only quantitative data.

Last, the language in this bullet statement began mentioning career counselors, but the remaining language only referred to academic advisors. If these statements apply to career staff, clarification of the language would be valuable.

Recommendation 4, Bullet 4

We feel that an electronic record keeping system may be of value for high risk students, but we believe it is important to further investigate the value of using such a system before investing significant dollars into development. Confidentiality is a cornerstone of career counseling, therefore, this system would not be a good value if it were intended for client notes, yet staff were reluctant to place information in a “public” arena.

Recommendation 4, Bullet 5

We agree with the need for consistent communications to students across campus. We believe the University of Minnesota Portal may be a good tool for communicating such information to students due to its ability to have campus wide as well as collegiate specific information.

IV. Recommendations Concerning Faculty Mentoring

Recommendation 5

We commend that “scholarly work” was defined broadly to meet the wide ranging academic and career goals of our students. We believe that it is only through such a broad definition will we have success in engaging the largest number of students possible in such projects. At the same time, some of the sub-areas listed as scholarly work were not clearly defined including internship, work on campus, and civic engagement activities. Further clarification of these would be valuable.

While pleased at the broad definition of “scholarly work” we were disappointed to see that the only suggestion for achieving this recommendation was to invest in the Undergraduate Research Opportunities Program. If scholarly work is to be defined broadly, then the strategies for achieving the stated goal should also be broad.

Last, we were pleased with the final sentence on recommendation 5 that faculty hiring, promotion, tenure and post-tenure reviews should include the expectation of high-quality interactions with undergraduates. This will be essential to achieving the above goal.

Conclusion

The CDN Board feels very positive about many of the recommendations in this report and appreciate having input into the process both before this draft was written and afterward. We are eager to be involved in the implementation process since we feel we would have a lot of unique ideas and insights to provide during that process.

Appendix 5: Public Comment Period Feedback

Undergraduate SSTF Report Feedback

Public comment Period

December 16, 2005-January 27, 2006

Recommendation 1

Establish an integrated, campus-wide approach to student support programs and resources, with both authority and accountability for student success.

Recommendation 1: Research, Scholarship, and Creative Expression Day: **Why not broaden this to focus on undergraduate learning in general?** My concern is that a day focused on research, etc. will appeal to only a portion of the undergraduate population. Many others would see it as a study catch-up day or a day off. **Enlarge the focus to include all types of topics on undergraduate learning: not only research and creative expression but also advising workshops, "learning about learning" sessions, etc. Have sessions for faculty, staff, and students so all can participate together. Encourage faculty to tie this day into the classes they teach** (e.g., a class that involves group projects might be encouraged to go to a session on "successful group work" and then could discuss what they learned the next time the class met.)

Phillip Barry/Faculty, Staff

This concerns **improving student retention and graduate rates**. With respect to this behavior I recommend that the **university become more fully informed and intensely proactive**. This modest recommendation includes the following components. It is admitted that they do not as yet comprise a coordinated whole at present.

1. **Encourage all entering PSEO and freshmen students to sign a confidentiality release** permitting the free exchange of information among parents, student medical and mental health professionals, students, financial aid, counseling service, disability services and all other sources of information with respect to the student. I emphasize that this **not be mandatory** but strongly encouraged. **Parents should be aware that this option is being offered.**
2. Upon student admission to PSEO or freshman enrollment, **parents of students should be requested to supply any information useful to the university in understanding the student. The university should use this to identify problem areas. Ideally there should be a personal contact with each parent household.**
3. **For PSEO and freshmen students, attendance and performance information should be submitted in real time on a weekly basis.** Current **information technology** permits efficient input and reporting. **Thresholds for alert to support personnel can be developed and programmed into the reporting system, permitting review of only problem situations. The goal is to activate remedial action before problems become severe.**

4. **PSEO and freshmen** should be offered the **option of selecting one of their faculty as their advisor. In large lecture courses, upper class and graduate student mentors should be hired (providing financial aid to mentors)** to develop ongoing contact with freshmen choosing this option.
5. **For PSEO and freshmen students four contacts per semester with a designated person should be required.** Currently, with on-line registration many students have less than one contact per semester.
6. In developing resources to support improved retention and graduation rates, **on site contact with public and private institutions with better records should be considered.** It is a chance to learn from our betters.

Charles Cline, Staff

Feedback regarding **Welcome Week Program (Recommendations #1 & #3)**

Exploration and planning for a welcome week program was conducted from July 2003-July 2004. In that time much progress was made toward implementing such a program for Fall 2005. Although the program did not take place, **much of the work that was done in preparing for the program greatly supports the objectives the Student Support Task Force suggest in Recommendations #1 and #3.**

- Goals of welcome week program previously determined:
- Provide a common experience to help all first-year students adjust to campus life
- Help students discover the multitude of academic and support resources available at the University
- Enable students to develop academic skills necessary for a successful first-year experience
- Help students understand what it means to be a member of the University of Minnesota community
- Begin the process of making important connections with the University's faculty and staff
- Expected benefits drawn from research and discussions with stakeholders previously determined:
- U of M advantage during admissions process (freshman start earlier, etc;)
- Increased first-year retention, which could impact all retention and graduate rates
- Increased student satisfaction
- Stronger identity to University and college
- Sense of community and class identity
- Ability to educate students around college expectations and personal responsibility
- Less anxiety for new students on the first day of school

The following is an overview of work that can be built upon should the welcome week recommendation be accepted:

- Research has been conducted on welcome week programs at other institutions (U of Michigan, Indiana University, Purdue University and Ohio State University included)
- Notes and feedback have been summarized from 30+ units and departments across campus, including all eight freshman admitting colleges
- Schedule of programming has been previously outlined, including:
- Discussions on what it means to be a student in college X
- Group/individual adviser meetings

- Activities for students to familiarize themselves with campus (buying books, riding the bus, finding their classes...)
- Sample class/lab sessions
- Introduction to career options
- Small group discussions
- Base-group model, using current students as student leaders
- Leadership structure determined (including position descriptions, committee responsibilities, committee members)
- Budget estimates
- Incorporating New Student Weekend workshop curriculum into the welcome week programming: value exploration/personal mission statements, understanding difference at the U, getting involved on campus, ownership overall college experience.

Orientation & First-Year Programs is a strong supporter of the welcome week initiative (for both first-year and transfer students) with the understanding that it would not replace the current summer Orientation & Registration program, but be a substantial transitional experience that would complement summer orientation. It would however, be important to integrate other campus transitional experiences currently in place so efforts are not duplicated (ie, New Student Weekend, Multicultural Kickoff, JumpStart, other related first-year initiatives).

In addition, the programming component of welcome week **should focus not only on the academic transitions students' experience, but also program towards making students more comfortable on campus. This includes opportunities for students to get to know each other in social settings, learning of involvement opportunities, building community, learning about general resources that will assist them in their transitions, and meeting their basic needs (setting up room, learning bus route, knowing where to park on campus...).**

More details regarding the previously planning of welcome (including proposed schedule, leadership structure, specific notes from department/unit/college meetings...) are available upon request.

Jennifer Rachmaciej, Staff

I believe further articulation of the need for coordinated student support services would be advised, particularly in the area of tutoring, supplemental instruction, and counseling. I believe there is currently a wait for UCCS counseling services. Student's with immediate needs regarding mental health, disability, and study skills are often discouraged by this wait and do not get the support they need. Additionally, it is difficult for students to know where to go for the tutoring or counseling support they need. A U-wide committee or center to coordinate support services and make them more transparent to students would be a great improvement. Additional funding and training for tutors would also be beneficial.

Thank you for your work on behalf of students! Feel free to contact me with any questions about this feedback (ivers048@umn.edu).

Sara Georgeson, Staff

I appreciate the increase in focus on **transfer students** as a vital part of the University. For the past three years, I have been working with transfer students and transfer programming for CLA and am only beginning to understand the complexities involved in addressing their varied needs. Although it is important that we continue to build bridges to external audiences such as community colleges, and to think of the ways we must better serve regional, national and international students, I would like to also submit that we also **need to serve our own UMNTC students much more effectively**.

Many students who attend the UMNTC campus are **not, in my opinion, appropriately supported in their major exploration process**. If a student becomes undecided or changes majors through the course of completing coursework for a particular major or program and subsequently makes a decision to leave her college, often that student is left to find her own path without much support from advisers and faculty who are un-versed in the "new" interest or major. **We need to find ways of communicating with each other, from college to college, about students who are transferring programs**. We could pursue such things as entering data into a PS Notes format, compiling contact lists for each college and setting up a university-wide group dedicated to undecided and deciding students, and other internal in-transition issues.

Thanks for the opportunity to submit and share ideas.

Amy Rosenthal, Staff

Re-examine how the **first recommendation** is framed so that it speaks more clearly to the importance of student affairs and academic affairs working together

Consider moving welcome week recommendation to the **first recommendation** since it seems to fit better there

Public Forum notes

Recommendation 1, Paragraph 2

“...we recommend that the University develop an approach that will provide campus-wide coordination and ensure accountability for student support programs and functions.”

What does accountability mean? What was your vision exactly? What is meant by student support programs and functions? These statements were broad and left us uncertain of what was meant.

Recommendation 1, Bullet 1

“Strengthening and enriching the interaction between academic and student services functions.”

The CDN Board **strongly supports** this recommendation. We would like to point out that **many career offices on campus do have a formalized system for collaborating with academic advising**. In CLA, for example, every advising office has a career liaison who collaborates with the advisors to conduct presentations, hold career counselor office hours or to conduct programs as determined by student needs. They also have a referral form which advisors can use to refer students for career counseling. In the St. Paul Campus Career Center, similar liaison relationships exist. These liaisons work with individual staff and faculty advisors to update them on career issues and to discuss the needs of students. These relationships encourage and support bi-directional referral between advising and career staff as appropriate.

Recommendation 1, Bullet 2

“Ensuring a welcoming learning environment and strong academic support networks for students from populations traditionally underserved in higher education through the implementation of effective instructional approaches.”

The CDN Board strongly supports this goal for underserved and all students. Clarification on what this would look like would be valuable.

Recommendation 1, Bullet 3

“Strengthening existing or developing new University of Minnesota traditions that celebrate achievement and build community and connections.”

This recommendation **seemed very unclear** to us and we were **uncertain how this would have a positive impact for student support on campus**. Does **research** show that stronger traditions lead to better student support?

Recommendation 1, Bullet 6

“...build on freshmen seminars that we know produce positive outcomes, as well as develop new programs that will ensure success of students at other key junctures in their educational experience.”

We **support this statement** and believe that **career development courses are currently meeting this objective** by providing significant guidance to students at all academic levels on campus. For freshmen and sophomore students there are career exploration courses and for juniors and seniors career planning courses which provide positive outcomes for students.

CDN Board Report

Because the six health professions schools of the University of Minnesota educates 70% of the health professions workforce of Minnesota, the Academic Health Center is particularly interested in the strategic repositioning reports focused on students and education. The staff of the AHC Office of Education under my direction collaborates with faculty, administrators, staff and students across the six health profession schools of the University to promote quality contemporary education. Our work is primarily in two areas: (1) achieving student learning outcomes as related ultimately to patient, community and population health and (2) assuring a vital health professions workforce for Minnesota. We provide expertise to advance teaching/learning scholarship and to facilitate services for faculty, students, staff, and administrators. Our work assists these groups to develop new >skills, cross traditional boundaries between the health profession schools, and work in diverse, community-based settings. It is from this framework, strategy and mission that we share our response to the taskforce report on Undergraduate Reform: Student Support.

After thoughtful consideration and discussion, we offer the following comments and recommendations:

1. The AHC Office of Education staff **strongly supports** the taskforce's recommendation that the student support services on campus be student-centered. **Outcome data** to measure the effectiveness of student services are necessary to evaluate current student services and develop new effective services. We believe that a stronger emphasis on creating an infrastructure to track student utilization

of services on campus is vital to student success. The **PeopleSoft** system, in our experience, has generally **not worked well** for supporting pre-health student tracking, health professions students and education in the Academic Health Center.

2. As discussed in the report, we believe that the SMART Learning Commons model appears to be an **innovative and forward-thinking platform to make a variety of student services accessible to all students**.

AHC Office of Education Staff

Though it might not be easy to integrate in this document, I'd like to mention the importance of fully **integrating student services professionals** in the work of colleges and departments, in terms of program development, policy articulation, and governance. This has been the **norm in General College**, and it has enhanced the degree to which academics and student services have been meaningfully integrated, and the development of some powerful tools for student success and retention such as the **very robust academic progress monitoring system we have in place**.

Mary Ellen Shaw, Staff

Page 3 – Section 2 “...suggest that the University Explores developing a centralized Web-based repository of reports from task forces and committees.”

We **strongly support** the concept of a centralized web-based information source. It is difficult to determine what research and surveys have already been done and it is also difficult to access and benefit from the work of University committees.

The Career Development Network does have a web based information resource system, **www.career.umn.edu which could serve as a model for information sharing**. Portions of this web site include campus-wide career information for employers and students, while a password protected section of the web site includes committee reports, meeting minutes and other documents of interest to CDN members.

Conclusion

The CDN Board feels **very positive about many of the recommendations** in this report and appreciate having input into the process both before this draft was written and afterward. We are eager to be involved in the implementation process since we feel we would have a lot of unique ideas and insights to provide during that process.

CDN Board Report

3. The report recommends “develop[ing] and oversee[ing] partnerships among the SMART center, University Libraries, MCAE, and writing centers” (5) in order to build a “campus-wide approach to student support programs and resources” (4). The **Center for Writing has been collaborating in such partnerships** for five years: for example, we have co-sponsored several writing workshops with the libraries, and we have a popular satellite presence in Wilson Library and Frontier and Middlebrook Halls, where students can seek one-to-one help on their writing forty hours a week.

Learning Reconsidered (by ACPA and NASPA) **should be the foundation** of Recommendation #1 as it defines learning as **integrating academic AND student development**. **Recommendation #1 thus would be an umbrella for the rest of the recommendations**. Using this document as the focus of this task force's work would demonstrate a commitment to the whole student. It would make the U of M unique and on the cutting edge of higher education. **The rest of the recommendations should be stated as ways in which this integration and collaboration could happen, not as separate entities.**

- o Recommendation #1 (p.4, first bullet): "strengthening and enriching the interaction between academic and student services functions" should highlight an example that demonstrates what this looks like. Incorporate the idea of a student's co-curricular experience.
- o Recommendation #1 (p. 4, second bullet): Define "welcome environment" to include diversity statement (ie; space and opportunities where students can be themselves and share their stories with others to understand and experience difference.)
- o Recommendation #1: Incorporate footnote 3 into document

Jennifer Rachmaciej, Staff

Undergraduate Reform: Student Services

- ☐ Centralized Web-based repository of University studies and reports- page 3
- ☐ Better data relating to the undergraduate student experience- page 3
- ☐ Develop an electronic system to track undergraduate student advising/services- page 8

Comment: The Single Enterprise and Best Practice Management Tools Task Forces are **developing a process by which to identify, analyze, and promote implementation of best practice and single-University systems**. It appears that the technology/support systems recommended above may be **good candidates** to utilize this new process.

- ☐ Establish an integrated, campus-wide approach to student support programs and resources, with authority and accountability for student success- page 4

Comment: **Underlying these recommendations is an understanding that our current decentralized, silo approach to student services needs improvement**. As might be expected, achieving an effective balance between decentralized and centralized services and decision making has been at the heart of many discussions in the Administrative Steering Committee and task forces. The forthcoming recommendations regarding University culture, human resources, and single enterprise-thinking will add momentum to these academic task force recommendations and should provide additional insights related to addressing these issues at the campus and system-level.

Administrative Service & Productivity Steering Committee

Recommendation 2

Develop a department and/or center for the scholarship of college teaching and learning.

Recommendation 2: Department/Center focus: Establishing a **department or center for scholarship of teaching and learning is an excellent idea**. However, the department/center would need to be set up very carefully in order to successfully support student learning at the U of M:

(1) **it should be set up so its research is based on, and actually results in, direct, concrete, and measurable improvements in U of M undergraduate learning.** A large amount of current educational research, while interesting and of high quality, is nonetheless useless for U of M faculty concerned about how specifically to improve their teaching and their students' learning.

(2) **It should not be responsible for 'remedial' teaching, or other tasks that the university or other colleges may see the need for, but are unwilling to participate in.**

(3) It should be set up so that there is a **synergistic relationship between it and other departments**. Voluntary, mutual beneficial **collaborations** should be an essential part of the department/center's work. **Developing "successful, innovative pedagogies ..."** for specific classes will not work unless it is **done in collaboration with the faculty who normally teach those classes**. The department/center must be able and willing to engage in a **variety of types of collaboration**. There must be a low 'start up' cost for other departments or faculty interesting in such collaboration (e.g., **the faculty should not need to have an extensive background in educational research methodology**). **The university should facilitate collaborations. For example, one way to do this would be for the university to provide grants for faculty and staff from other departments to work in this proposed department/center for a summer, semester, or year.**

Phillip Barry, Staff

Comments on Recommendation 2: I love the idea of groups coming together to focus on effective learning. Rather than a department, I think I'd like to see something on the order of an 'institute' which would bring together the SMART Commons, Center for Teaching and Learning Services, and faculty who are researching issues related to effective learning in higher education. (and I'm sure there are other groups who should be included as well) while not trying to make these group be the same entity.

Connie Tzenis, Staff

Thank you to the Task Force! I have a few comments/recommendations:

-- Regarding **Recommendation #2**, I suggest that this **new unit also be for academic advising**. Creating a University-wide "department or center for the scholarship of college teaching and learning" is **somewhat short-sighted if it does not also include the scholarship of academic and career advising, mentoring, and student development**. Such scholarship supports the Task Force's recommendations 3 and 4 (Part III academic advising) and recommendation 5 and 6 (Part IV

faculty mentoring). Perhaps "scholarship of academic and career advising" is implied in "scholarship of teaching and learning," but since not everyone catches that implication, **I highly recommend including that phrase**. Doing so lends more credence to the task force's recommendations regarding the professions of academic and career advising in Part III.

This **new unit described in recommendation #2 could then be responsible for the "required, centralized training program for academic and career advisers" of recommendation #4** (not to replace college and department training programs, as already noted in the recommendation).

Beverly Atkinson, Staff

The deans were **uniformly opposed to recommendation #2**. It was felt that this should be the purview of the new College of Education or the Center for Teaching and Learning; a new administrative structure is not warranted.

Steven Crouch and Bob Elde (on behalf of the Twin Cities Deans)

Recommendation 2

Agree, noting that the Center for Teaching and Learning Services is established to provide some of what is proposed. **Is the intent to replace it, to ignore it, to build on it, or to work with it?**

Terry Collins, Faculty

Recommendation 2

We **support the concept of a center for the scholarship of teaching and learning**. We agree there is a **great need for more research** on undergraduate teaching and learning.

CDN Board Report

Recommendation 2, I think, relates as much to the Task Force rethinking GC/EdHD/HEc as it does to advising specifically, but as we **propose to bring advising more centrally into our understanding of the undergraduate experience**, advising will naturally be a subject of **research**.

Joshua Borowicz

4. I find **Recommendation 2 very appealing**—I believe one significant element that can make the U stand out from other research universities is a deep commitment to the scholarship of college teaching and learning. I have no doubt that the History of Science Department and the Center for Research on Developmental Education and Urban Literacy are significant models for implementing this recommendation. However, the **Center for Teaching and Learning Services is a notable omission here, as is the Center for Writing**; with its workshops for students and faculty, its outreach programs at the U and in K-12 classrooms around the state, its grants program, its reflective practice, and its commitment to assessment and research, the **Center for Writing is an existing program that addresses Recommendation 2 in a comprehensive way**.

Katie Levin

Recommendation #2 (p. 5): “develop a new center whose faculty’s research focus is on undergraduate teaching, learning and support...” **Include student development and needs of different student populations. This may be encompassed in “support” however, it should be more explicit.**

Jennifer Rachmaciej, Staff

Recommendation 3

Invest in and strengthen academic and career advising and services across the campus.

My comment is specifically in response to this task force's **third recommendation**: "Invest in and strengthen academic and career advising and services across the campus."

I wholeheartedly agree that an **investment in advising resources** is absolutely essential if we are to become a top institution. Advising is key to the timely graduation, future success, and general happiness of our undergraduate students. The task force recommends that professional advisers have advising loads that allow "them to take ownership for the success of their advisees. They should have sufficient time to monitor how well their students are doing and to develop meaningful relationships with their advisees."

I attended the NACADA (National Academic Advising Association) National Conference in fall 2005. I would like to share a comment made during a presentation about millennial students that was delivered to an audience of approximately 500 faculty and professional advisers from a wide variety of U.S. universities and colleges. The presenter noted that her freshmen students initially imagine their college advisers to be equivalent to their high school guidance counselors. She then said: "High school guidance counselors work with upwards of 400-500 students; with these numbers their work does not compare to the work of a college adviser whose smaller advising load allows for a much more significant and personal mentor/mentee relationship." Judging from the chuckles and nods in the audience, the majority of professional and faculty advisers in that conference room agreed -- who on earth can "advise" 400-500 students??

Professional advisers in CLA currently can have upwards of 650 assigned advisees. This advising load makes it impossible to have a personal and mentor-like relationship with even a small percentage of advisees. Right now, if we were to require our students to meet with their assigned adviser once per semester (as we "strongly encourage"), we would not be able to meet the demand. The simple math is as follows: approx. 14 weeks in a semester x 5 days = approx. 70 days = 650 advisees / 70 days = approx. 10 appointments per day. If we were to see 10 appointments per day, we would not be able to develop a personal relationship with any of our students and we would be able to do little besides advising during the semester -- we would have very very limited time for email advising, petition review, committee work, meetings, events, programs, etc. etc. **With lighter advising loads, we could actually require students to meet with us (perhaps once a year), which would help to boost graduation rates.** The only advising appointment we currently require is the orientation appointment. **With required appointments, we could help those students who struggle with the major decision making process, for instance, and we could monitor their completion of**

requirements more closely. Quite a few forget the requirements as they move through their program. Even if we could not (or did not) require appointments, **lighter advising loads would allow us to at least check the progress of all of our advisees each year -- we could outreach to those who appeared in need.** Students often complain that "nobody told them" that they were missing certain requirements -- we would actually be able to tell them, without their having to ask. It is unforgivable that when parents or professors call and ask about their students, that we quite often have to say that we have never met them -- how can we say that we are these students "advisers" if we have only ever crossed paths with them at orientation?

An investment in advising also would allow us to **strengthen our resources for undecided students**, and perhaps even to **create an undecided student community** of sorts. More than half of our students enter CLA undecided, and our current structure does not support these students adequately. When undecided students are in the crucial explorative stage -- the stage where we "lose" a number of our students -- **they are especially in need of a mentor-like relationship with their professional adviser.**

I also agree with the Task Force's recommendation that **advisers need "adequate facilities."** When I came to this institution I was horrified to discover that a **majority of advisers meet with students in cubes.** I am surprised, in fact, that advising can legally take place in cubes. Students need to be able to meet with their advisers and **be assured confidentiality.** During a probation review, for instance, a student may want to bring up something very personal that happened to her that affected her academics -- she is less likely to disclose information if another student is meeting with an adviser in the next cube. **When discussing academics, personal information invariably enters the conversation in some form -- we cannot do our jobs and deliver sound advice if our students are concerned that they may be overheard by another student.**

In sum, I believe that, more than anything else, if we are able to have personal relationships with a majority (rather than a minority) of our students it will help with everything from early retention, to timely major declaration, to 4-year graduation rates, to job/grad school placement and to alumni satisfaction. **The Task Force's recommendations would undoubtedly move us closer to these goals.**

Natalie K. Prestwich, Staff

Regarding **recommendation #3**, I applaud the task force's agreement that "professional academic advising should continue to be delivered in the colleges and departments where advisers and students have close connections to both the faculty and disciplines for which they are advising." I would add another sub-point to the recommendation: **Integrate academic advising into the curriculum -- both existing and new courses -- following the example and efforts of the Learning Abroad Center to integrate study abroad into the curriculum** (a concept that is still being defined). One of my colleagues in department advising is collaborating with faculty in some department courses to deliver advising resources and support to students. I have begun some modest discussions toward a similar end, identifying several 'key' courses required of our majors and thinking of possible course modules to deliver or ask faculty to include in all sections of these courses.

I applaud the task force's recommendations to address inconsistencies in training, reward, compensation, position description, employment class, etc. used to define professional academic advising responsibilities across campus.

Finally, I recommend that the University of Minnesota **establish an Academic of Distinguished Academic Advisers, parallel in all respects to the Academy of Distinguished Teachers.** Its membership would include all recipients of the campus-wide John Tate Academic Advising Award -- professional academic advisers and faculty who contribute significantly to undergraduate advising. It should have structure, mission, and budgetary support, as well as time for its members to contribute to the University's lobbying efforts to improve high quality academic advising across all colleges and departments and to the University's scholarship on academic advising.

Thank you for this opportunity to provide feedback.

Beverly Atkinson, Staff

I would like to express my **support for the report, especially recommendations 3, 4, and 5.** I believe that **support for academic and career advising** in the form of training, private office space, manageable advisee load, and pay equity will greatly enhance the student experience. **Further articulation of the goals of advising and career counseling as well as support for collaboration between academic and career counselors is needed for students to experience the university as a seamless system. I support the recommendations for campus wide training, goal setting and a U-wide communications plan.**

Sara Georgeson, Staff

Recommendation 3

Agree. Does the first bullet set **expectations too low on frequency of required contact with advisors** in the first two years? Creating expectations about advisor contact seems essential if we hope to create a climate where Recommendation 5 seems like a natural feature of a student's life.

Terry Collins, Faculty

Add language in **#3** about being intentional in **supporting our diverse student body**

Public Forum notes

The COC concurred with the need to continue to improve undergraduate student support by strengthening and better coordinating academic advising and career counseling functions at the university. We were particularly **pleased by the effort to develop functional descriptions of appropriate levels of support such as those offered in recommendation #3.** Such an approach should help insure comparable levels of service across campus while at the same time enhancing the ability of different colleges to adapt to the distinct needs of their students. We likewise concur with the need for **adequate facilities** for advisors and career counselors.

Riv Ellen Prell, Vice-Chair, CLA Council of Chairs

III. Recommendations Concerning Academic & Career Advising

Introductory Paragraph

“academic and career advisers express frustration with current University systems in place (or lack thereof) to reach students, as well as with inconsistencies and discrepancies in resources allocated to service delivery across the University, including number of advisers and their expected advisee load.”

We feel that this **statement is very important** and appreciated seeing this highlighted early in this section of the summary. **Offices are expected to perform at the level of an “ideal” office on campus, but are not provided the resources to support such service levels. This leaves both students and staff feeling tremendously frustrated by inconsistent service levels and expectations.**

Recommendation 3, Paragraph 1, Final Sentence

“One of his primary findings concerning academic advising is the importance of qualified, professional, academic advisors.”

As professionals we **agreed with this statement** and feel the University should be intentional about setting standards for *all* student support staff to ensure the staff is professional and qualified.

Recommendation 3, Paragraph 2, Sentence 1

“The Task Force agreed that professional academic advising should continue to be delivered in the colleges and departments where advisers and students have close connections to both the faculty and disciplines for which they are advising.”

It is important to point out that strong **connections to faculty** and disciplines are also **critically valuable to career development** work on campus. Career staff often tailor services, presentations and classroom visits to the needs of individual majors and collaborate with faculty to enhance/develop both student and employer relationships.

Being located in a college does not always lead to close connections with disciplines if **faculty and staff** do not have a desire or incentive to **collaborate and communicate**. Likewise, faculty and staff who have a desire to collaborate can do so even if not housed within a collegiate unit such as is the case with the St. Paul Campus Career Center.

Recommendation 3, Bullet 1

This bullet focused on the needs for individual advising appointments with freshmen and sophomore students, but we feel there is **just as much need in regular advising appointments at the junior and senior level to ensure timely graduation and support as students transition out of the University.**

Recommendation 3, Bullets 1 & 2

These two bullet statements only addressed academic advising student loads and we feel there is value at **also looking at the staffing load of career counselors on campus**. In many cases career staff are unable to conduct individual meetings with students which would greatly benefit student outcomes.

Recommendation 3, Bullet 3

We **strongly support** the recommendation that **adequate facilities** are necessary to preserve student privacy and to have the **most honest, and therefore productive, communication** between counselors, advisors and students.

Recommendation 3, Bullet 4

“Charge a group to examine potential strategies to regionalize career services and better integrate career development into undergraduate advising and curricula.”

The Career Development Network already has a sub-committee comprised of Jerry Rinehart and the undergraduate career services directors including Sara Nagel Newberg, St. Paul Campus Career Center; Paul Timmins, Career and Community Learning Center; Mark Sorenson-Wagner, Career Center for Science and Engineering; and Morgan Kinross-Wright, Business Career Center. This committee began meeting early in the fall to discuss how career services might be integrated into the new Classroom Science Building project and they continue to meet to discuss collaboration. **The Career Development Network strongly believes that this pre-existing committee should be the core of the group charged to examine the regionalization of career services.**

Recommendation 3, Bullet 4

“...better integrate career development and academic advising and curricula.”

This statement left us with many people to believe that a possible plan was to have 1 individual conduct both career counseling and academic advising with students. From talking with the Task Force, we now understand that this is not the case and feel that **changing the wording to clarify would be valuable. The word “integrate” perhaps is what makes this unclear.**

CDN Board Report

Your recommendation to insure **privacy** for the student and advisor is key to a student feeling comfortable. I also think that the **advising load is also very important** to the quality of the advising that can be delivered. CLA's advising load is much too high. The **electronic advising records have been very helpful** particularly when another advisor has had to see a colleague's student. The access to the record throughout the student's four years would be a great step forward. My only concern is that I wonder **where the older returning student fits into this model.** The connection to the faculty through mentoring and UROP would certainly **humanize the University. Orienting present faculty and new faculty to advising is also a very good idea.**

Zita Sanzone, Staff

Recommendation 3 and other sections of the document **should address unique needs for the advising of underrepresented, disadvantaged and first generation college students.** Students of color and other disadvantaged groups should have expanded options for "intensive advising" programs. These programs would give them greater access to and attention from advisors who are not overloaded with 600+ students. They would have more access more often to advising staff and more frequent check-ins if they choose. This would ensure that disadvantaged students receive the guidance needed to succeed and graduate in a timely manner. These students could also be given additional encouragement toward graduate studies.

Carol Rachac, Staff

The **physical plant needs to be taken into consideration in attracting well-qualified students, supporting student services, and promoting optimal interaction for learning.**

We **strongly support the recommendations concerning investment in both career and academic advisement** on campus to facilitate student use across academic unit's core services. Understanding and **addressing the complexities, realities and barriers of these systems and personnel support will be vital for success.** For example, to be effective in academic advisement for pre-health students, undergraduate advisors need to be informed about the constantly changing information regarding careers, requirements and information for admission to health professions schools. The Health Careers Center staff has attempted to offer professional development sessions on health careers for campus-based academic advisors to help them provide accurate and current advice. However, current workload and advisement schedules without protected development time are significant barriers to supporting this important work. Therefore, we believe that **standardized professional development/training for advisors is an important need on campus**

4. Simply stated, we believe that student services personnel are professionals with a specialized skill set that must be valued, developed and supported. It is our observation that our student services **colleagues experience inequities in salary levels and job classes across schools/colleges. Until the salary issue in the advisement community is addressed, this University will continue to experience advisor turnover of advisors in all colleges.** Currently, the University is a prime environment for competing institutions to recruit seasoned advisors for their student communities. We need to have effective retention strategies in place to prevent our experienced and highly regarded advisors from leaving the University because of compensation issues.

5. We have found that **regionalizing career services** such as the Health Careers Center and the St. Paul Campus Career Center works well as is a **proven models of shared resources for greater access. This model also develops a learning community of supportive and motivated advisors.**

6. We **support the proposed "Welcome Week" strategy.** This type of student activity engages and initiates students in overall school spirit at the University.

AHC Office of Education Staff

We appreciate the recommendations in your report, which will certainly help raise the career services available to University of Minnesota, Twin Cities students to a level becoming a top three research institution. **We believe establishing this top status includes the University of Minnesota also being known for having one of the most effective and student-centered career services systems. We look forward to helping implement the core ideas proposed related to: integrating career information into advising; investing in and strengthening advising and career services; standardizing the level of service across campus; and encouraging students to engage in experiential learning activities.**

We wish to offer our expertise and insight as career professionals related to the **fourth point under Recommendation 3:** "Charge a group to examine potential strategies to regionalize career services". As the leaders of the four largest undergraduate career centers on campus, we have begun to meet monthly to identify ways for our centers and teams to share resources and services.

The decentralized model of career services currently in place allows us to provide highly specialized career services to students; this is essential because students in different colleges often have very different career development and planning needs. However, our work together—and the work of the whole Career Development Network—has helped us uncover a great deal of common ground and room for collaboration. **So, while we believe that a decentralized model of career services is ideal for serving students, we would like to continue moving towards a more coordinated, collaborative decentralized model.**

Here are some of the **top issues we have discussed and urge you to consider as this particular recommendation is implemented:**

The need for career services has never been stronger—our students have higher debt after the completion of an undergraduate degree than ever before and helping them find meaningful and lucrative work is of top concern to students and their parents. This is a paradigm shift from 20 years ago when education itself was the end goal. **Now education, plus a sturdy bridge onto a lifelong career path, has become a top goal of undergraduate education. How do we help the University of Minnesota embrace this paradigm shift?**

How can we **advocate for additional career counseling and employment assistance resources across all career centers** so that students at different colleges do not feel as though they receive substandard assistance?

How can we **serve the needs of employers** who wish to conduct recruiting across college boundaries with the **needs of students as first priority**, while recognizing that strong relationships with our corporate partners are ever more important as we compete with other top Universities for these relationships?

How do we **balance accessibility and proximity of services with the value of specialized knowledge** that allows career center teams to develop targeted relationships with employers, faculty and alumni?

How can we **serve the niche markets that cross college or career center boundaries**, such as advertising, economic analysis, actuarial science, etc?

How can we capitalize on the GoldPass system in terms of promoting the system and structuring employer relations' efforts in support of the system?

How can we **address our common need for an on-campus recruiting management system, which will operate in conjunction with the GoldPass system?**

How can **applications** that have been developed within individual centers **be expanded across the University** for the benefit of students (assessment instruments, courses, workshops, alumni contact programs, graduate profile projects, on-campus recruiting models, etc.)?

The time is ripe to address these issues with a fresh approach and refine our models of service delivery accordingly. The college restructuring currently underway opens opportunities for new configurations and the current staff within the career centers are collaborating with new spirit. We look forward to a

full discussion in which we can explore these issues and are currently working on a benchmarking project with other Big 10 career center operations to help us find innovative solutions.

Before long-term structural decisions are made, **we encourage a thorough discussion of the issues affecting career services.** With further conversation, we are confident the pieces are in place to build the best career services program in the Big 10. We invite you to call on us, as the leaders of the career centers, to lend our expertise during the implementation phase of this recommendation. In the meantime, thank you for the commitment you have expressed to putting the needs of students first through your recommendations.

Morgan Kinross-Wright, Business Career Center, Carlson School of Management
Sara Nagel Newberg, St. Paul Campus Career Center
Paul Timmins, Career and Community Learning Center
Mark Sorenson-Wagner, Career Center for Science and Engineering
Staff

In responding to the details in Recommendation #3, I'd **suggest language stressing the usefulness of integrating career exploration early on and throughout students' academic advising experience.** This might involve some cross-training for both academic and career personnel, locating career and academic advising services together, and making career exploration a requirement for incoming students, whether or not they believe they know their major.

In thinking about staffing levels (also Recommendation #3), I'd **recommend considering mentioning a range of advisees as accepted best practice.** From years of participation in NACADA, I have had conversations with others about their advising loads, and while there isn't a firm number out there, I've heard a consensus around 200-300 being optimal, depending on the characteristics of the advisees (thus working with a more at-risk population would mean a lower case load). **This range of student advisees allows for advisers to participate in professional development and contribution activities, making advising an attractive life-long career.** Also, the contributions of fully-engaged professionals will help the U of M reach its research and service mission goals.

I support your proposing professional offices for student services professionals. I'd like to add, if it isn't in there, **a call for professional development, promotion opportunities, and job security.**

Mary Ellen Shaw, Staff

We work from the Thayer premise [Paul Thayer, Vice President for Student Retention Colorado State University] 'Most students will not do what we want them to even if it is their best interest-- **to ensure student participation in advising activity it must be built into the structure of their college experience.**

- We **applaud the Task Force** recommendation that the **expectation** is that every undergraduate will **meet with an advisor at least each semester** during their first year and annually in the second year.

The Task Force should **consider annual advising meetings through out students' undergraduate careers** to prevent graduation audit difficulties and ensure that co-curricular development is reflected upon annually.

- The Task Force should **recommend a thorough review of student progress policies that work against creating a culture of expectations that students engage in productive advising relationships.**

Example, year-long registration for new students actually removes the necessity for students to see their advisors during fall semester in order to register for Spring etc.

Again will there be formal incentives for seeing advisors and what are consequences of not seeing advisors

- We **applaud the Task Force recommendation in the advisor roles appendix that advisors consistently give priority to developmental conversation over prescriptive tasking.**

However, **there is tension between the reality that many major departments particularly competitive majors, have become more and more prescriptive in their pre-requisite courses essentially prescribing a very full pre-transfer curriculum that leaves little latitude for developmental exploration.**

Capping student enrollment in the General Studies Department at one year also compresses the opportunity for student development and academic exploration and severely limits opportunity for advisors and students to plan seamless transitions to degree granting majors and departments.

Advising student case loads need to reflect the consensus that 200 -300 advisees per advisor are appropriate levels and should be **accepted University wide to ensure the quality of a students advising/developmental experience does not depend upon the department or college in which they are enrolled**

- To implement the Task Force recommendations it is essential that **advisors be given tools that can ensure student engagement** thoughtful registration and co-curricular conversation.

The Task Force definition of 'scholarly work' includes undergraduate teaching, mentoring, University and community service, leadership, undergraduate research, participation in mentoring, study abroad ... we would **include personal exploration including participation in career assessment and advising etc.**

The Task Force could **consider recommending development of a University "Co-curricular" passport/check list that would serve as an organizing tool for advisors and students to bring intentionality to student development** other than course selection and registration. As an **incentive** for students to complete a significant amount of developmental activity there might be some type of **graduation acknowledgement.**

Undecided students [usually assumed to represent 40+% of new students] benefit from departmental orientation classes that introduce the range of major and career opportunities for students in various

departments or disciplines—however, **orientation classes are small, fill very quickly, are sometimes reserved for students in the department rather than students from outside the department exploring options and can be 3000 level courses which are too late in a college career to be helpful to students exploring options.**

Research on advising effectiveness would be greatly enhanced if **all University advisors professional, peer and faculty would employ a consistent student contact log and coding form similar to that in place in General College.**

Bruce & Sharyn Schelske, Staff

Recommendation #3 (p. 6): Title “Invest in and strengthen academic and career advising and services across the campus” should be **expanded to read** “Invest in and strengthen academic advising, career advising, and personal leadership development for students so they learn how to integrate all aspects of their college experience.”

Recommendation #3 (p. 6): **Take out quote from Richard Light. Instead highlight footnote 10 in document.** Deliverable states that good academic and career advising can lead to increased retention, **more focus should be placed on how bullet points match CAS standards as a model.**

Recommendation #3 (p. 7, last bullet): “Adopt substantive orientation...” **should read** “Create a substantive first-year experience program to include orientation, welcome week, and freshman seminars/UNV 1001 courses for all new (first-year & transfer) to assist in the transition to the U of that will help all students adjust to campus life and understand what it means to be a member of the University community.”

Jennifer Rachmaciej

I think that the one **recommendation I find most vital is #3: "Invest in and strengthen academic and career advising and services across the campus."** It seems to me that we could have all the great ideas in the world—but **most of them would require people to work on them.**

Paul Timmins, Staff

- ☐ Expanding the SMART Learning Commons model- page 5
- ☐ Adequate facilities for academic and career advising / In-time advising centers- page 6-7

Comment: The Steering Committee recognizes that **top quality facilities are an essential component** of a top tier university. Further, **we recognize that co-location of faculty, programs, and staff are necessary to build collegiate communities and promote interdisciplinary programs and research.** The president is committed to **utilizing the six-year capital planning** process to examine and address these needs. It is also **necessary to pursue the strategy of optimizing the use of our existing facilities wherever possible.**

- ☐ Significant investment in professional advising- page 6
- ☐ Develop campus-wide goals and expectations for academic and career advisors- page 7

Comment: The Administrative Service and Productivity Steering Committee **agrees that addressing critical human resource issues are central** to achieving the University's strategic goal of becoming a top three public research institution. We believe there are many strategies to reach this objective. The upcoming Administrative Services Progress and Implementation Priorities Report will contain our suggestions for transformational projects to address these essential issues.

Administrative Service & Productivity Steering Committee

Recommendation 4

Develop campus-wide goals, communications plan, standards, and expectations for professional academic and career advising and services.

Recommendation 4: Centralized training for advisors: Training is needed on two levels: (1) Training for faculty who have not done significant advising before. (2) Advanced workshops, etc. for faculty who have done advising but want to learn how to be a more effective advisor.

Recommendation 4: Student services communication plan:

(1) **Information overload:** Communicating expectations and advising information to students is key and should be emphasized. One challenge, however, is that **students are experiencing advising information overload**. This problem is particularly **acute for beginning freshman** who are confronted with a wealth of information while adjusting to university life. However, I am seeing it more and more with other students as well. There is much good advising advice, so many resources, and so many opportunities that **students have trouble identifying what is most important**.

(2) **Focus of expectations.** It is important that students not see advising's role solely as helping them understand what classes to select or career to choose. **The students services communication plan should include not only those other items (co-curricular activities, community service, ...) mentioned in the recommendation, but also the student expectations mentioned in Appendix 3.**

(3) **Learning to learn:** Too often, specific discussions about how best to learn is isolated --- it occurs during orientation, advising sessions when students are having academic difficulty, and occasionally even in the classroom. **It should be more common, and a regular part of a student's overall academic education. Students should be challenged to be reflective about their own learning. Both advisors and students should expect a holistic discussion of a student's learning to be part of any regular advising session. The university should facilitate this by clearly communicating this expectation to students and advisors, and by providing simple, easily accessible and easily used resources** (e.g., short checklists on best learning practices for students).

Phillip Barry/Faculty, Staff

I think it is important that the **University have a central database for all faculty to access and find current results of the initiatives that are placed into action. This will give faculty a way to measure their success.**

Benjamin Lehman, Student

The student evaluation process does not work!!! We need something else in place that requires supervision and monitoring by peers. This is coming from a senior faculty member with excellent

reviews for many years. Here are the reasons:

- a) The questions are off the mark. How can the students judge the knowledge of an instructor?
- b) The online system is encouraging only students with complaints to submit.
- c) A good teacher has a long-term effect on the life of a student. How do you measure that with the current system?
- d) How do you promote and evaluate innovations in teaching?
- e) Their tie with the promotion-tenure system promotes grade inflation. Many people say: "Why should I care? I give out an A to everybody!"

Nikos Papanikolopoulos, Faculty

I find as a graduate student the **university systems are extremely difficult to use, not friendly to the students and rigid**. It appears that the university is run by undergraduate students who need employment. They have been trained by older more mature staff in what the procedures are and these procedures are used rigidly apparently because they are not able to use any other way. **These students have not been trained in how to deal with exceptions or special situations, the possibility that the university made an error that it needs to correct, or multiple problem solving strategies for the vast variety of situations and problems that can occur**. The university has an **excessive use of forms**, which often delay solving problems that a human could take care of in minutes, thereby saving much time and money. There is an **over-reliance on the computer**. Some paper is helpful to new students trying to navigate such a large university. It is difficult to access a human, older than an undergraduate, who might be able to assist in solving problems that occur. I would recommend, **streamlining the administration, increase the number of mature adults in all areas dealing with registration, class conflicts, billing and fees, health services charges for people who are not on campus should be able to be streamlined** without the individual having to go to health services to show their private insurance card in person so that it will be believed that I have private insurance. **More mature human beings to work in the offices and answer the phones in person-not a recorded message**. After all, it is real human beings who are your students! Some technology is good, but the university systems have gotten way out of hand. Let's rein it in a bit, for a more streamlined, user friendly university.

Bonnie Buckley, Student/Community Member

This **new unit described in recommendation #2 could then be responsible for the "required, centralized training program for academic and career advisers" of recommendation #4** (not to replace college and department training programs, as already noted in the recommendation).

Beverly Atkinson, Staff

Recommendation 4

Agree. From the limited vantage point of the new GC successor department, **advising will need to be shared with the admitting college from orientation forward for NHS.**

Terry Collins, Faculty

Recommendation 4, Bullet 1

“Develop a required, centralized training program for academic and career advisers.”

Clarification on the type of training would be beneficial.

The Career Development Network is highly supportive of keeping new career counselor staff informed and **we are committed to ongoing professional development for existing career counselors**. The Career Development Network has recently **created a Communications Committee and Recruitment Committee that are in the process of creating a new member handbook which explains the mission of the Career Development Network, how to access our documents online, meeting/committee details and centralized processes for events and software such as GoldPASS**.

In addition, the Career Development Network has a Professional Development Committee that **organizes monthly training sessions on topics central to the work of career counselors on campus**. Past professional development sessions have included U of M Portal, Portfolio, leadership, federal employment, assessments and much more. Our vision has greater emphasis on ongoing professional development rather than entry training for new career staff.

Recommendation 4, Bullet 2

“Implement a shared model of academic and career advising based on assessments...”

We feel that assessment tools can provide tremendous value when working with students. At the same time, assessments are not to be used lightly and can easily be used incorrectly and unethically if not interpreted by a qualified professional. Many assessments such as the Strong Interest Inventory and Myers Briggs Type Indicator cannot be purchased/interpreted by someone unless they meet certain educational requirements. **Should assessments be used widely on campus, significant efforts need to be taken to make sure they are used in an appropriate and ethical manner so they help rather than hinder/limit student development.**

Recommendation 4, Bullet 3

We are **very supportive of a review of the evaluation and reward system for academic advisors and career counselors across colleges**. In many cases, salaries vary widely from college to college and the only way for many staff at the University to advance (or secure raises beyond standard yearly adjustments) is by changing positions which leads to significant turnover.

We also agree that a plan should be developed to evaluate and reward staff in a consistent manner across campus. We feel this evaluation should be holistic and comprehensive, assessing all aspects of a successful staff member including qualitative, not only quantitative data.

Last, the language in this bullet statement began mentioning career counselors, but the remaining language only referred to academic advisors. If these statements apply to career staff, **clarification of the language would be valuable.**

Recommendation 4, Bullet 4

We feel that an **electronic record keeping system may be of value for high risk students, but we believe it is important to further investigate the value of using such a system before investing significant dollars into development**. Confidentiality is a cornerstone of career counseling, therefore, this system would not be a good value if it were intended for client notes, yet staff were reluctant to place information in a “public” arena.

Recommendation 4, Bullet 5

We agree with the need for consistent communications to students across campus. We believe the **University of Minnesota Portal** may be a good tool for communicating such information to students due to its ability to have campus wide as well as collegiate specific information.

CDN Board Report

- Recommendation 4 --We urge the committee to **include “outreach activity and communication to broader Minnesota regarding student development and advising expectations** in this recommendation
- Recommendation 4 -- We urge the committee to **specifically insert ‘staff, faculty and students’ to reinforce the concept** that student development includes all members of the University community it is not solely the responsibility of advisors
- Recommendation 4 or 6 -- We urge the committee to **specifically insert language about a campus wide core of common student development activities as an expectation for all freshmen seminars with an expectation of that freshmen seminar faculty participate in developing the activities and organizing an peer orientation for implementation**

Bruce & Sharyn Schelske, Staff

The one final area on which I wanted to comment was your recommendation of appointing a committee to explore the idea of "regionalizing career services." But I've co-written a separate response with my peers from other career offices, so I won't restate all those points here. Mostly, I just hope that the **current career services professionals can be involved in discussions** about the best ways to regionalize services. I've heard many people suggest a geographic division of career services, with offices in St. Paul, the East Bank, and on the West Bank. Certainly, there would be reasons why this would be appealing, as students would be served closest to where they are advised and where they have their classes. **And while the geographic offices may turn out to be the best way of proceeding, I'd also encourage people to consider the synergies that could be realized from other ways of grouping or linking career services;** there might be other ways that could also make sense as we seek to develop the best possible system of career services offices.

Paul Timmins, Staff

Recommendation 5

Require every undergraduate to complete a scholarly, creative, professional, or research experience with a University of Minnesota faculty member.

Regarding **recommendations #5 and #6**, is it **realistic to expect that there will be enough faculty interest and/or incentive** to meet these goals if the incentive is **not tied to promotion and tenure**? Can we **expand #5 to include staff that could serve in this role**? Can we **expand #5 to include some forms of engagement such as study abroad, service learning, or leadership**? The language of "scholarly, creative, professional, or research experience" makes sense for some disciplines but might be too narrow for others.

June Nobbe, Director of Leadership Programs in the Office for Student Affairs

Requiring faculty to work with a student on a project seems like a good idea, however, the project as defined by the task force is so general that anybody that goes to college will have had one of these experiences. I know I qualify for at least 3 of the recommendations they stated. **In short, until it is refined it is a terrible idea that will just cause confusion and more paperwork for the University.** This results in wasted labor and resources which could be better used towards other areas within the University, such as scholarships for these elite students the University wishes to attract.

Benjamin Lehman, Student

The only way for students to connect more and better with faculty is for them to be in **classes that are small enough** for the faculty to be able to give time and individualized attention to each student. The ideal (but not idealized) **number is 15, the maximum no more than 18.** This does not exclude large lectures, but suggests that all lecture classes should have enough sections to support the lectures, and that the TAs who teach the sections should be in regular contact with the lecturing faculty and maybe even sharing the lecturing and sectional responsibility. **That means that there should be enough faculty and enough graduate students to take on these responsibility without overburdening either. Grader classes should be abolished.**

Maria J. Fitzgerald, Faculty

Regarding **recommendations # 5 and 6**: I recommend some **study of how faculty are compensated (or not) in college and department positions responsible for student services, advising, and mentoring.** I see many faculty administrators who work very hard for very little reward, some of them becoming quite exhausted. **Do all colleges compensate faculty directors of undergraduate studies or associate deans of undergraduate programs equally?** That may be difficult to answer because faculty salaries vary considerably across colleges and disciplines.

Beverly Atkinson, Staff

Finally, the deans were sympathetic with **recommendation #5** but **skeptical about how workable** it would be to require that every undergraduate student have such an experience. The student to faculty ratios in some departments are much too high to achieve this goal, which would likely mean that many students would be required to seek their scholarly, creative, professional, or research experience outside their majors. **At a minimum, a study needs to be done about workloads and costs before seriously contemplating this measure. The deans felt that this should realistically be a requirement for only the Honors Program.**

Steven Crouch and Bob Elde (on behalf of the Twin Cities Deans)

Recommendation 5

Agree, BUT....How does this compute on the simple matter of faculty hours in the day? If we graduate 5000+ students per year in the new model (and we should, if we continue to admit 5300 annually, add transfer students, and do a better job of retention), can we really hope to have faculty supervise senior projects, do UROPs, etc, while improving support for graduate students as well? In a department like psych or English or Political Science, where there are 1000 or so majors, what ratios are we talking about? If accepted, the Honors proposal would consume significant faculty resources as well.

Terry Collins, Faculty

Recommendation 5

We **commend that “scholarly work” was defined broadly** to meet the wide ranging academic and career goals of our students. We believe that it is only through such a broad definition will we have success in engaging the largest number of students possible in such projects. **At the same time, some of the sub-areas listed as scholarly work were not clearly defined including internship, work on campus, and civic engagement activities. Further clarification of these would be valuable.**

While pleased at the broad definition of “scholarly work” we were **disappointed to see that the only suggestion for achieving this recommendation was to invest in the Undergraduate Research Opportunities Program. If scholarly work is to be defined broadly, then the strategies for achieving the stated goal should also be broad.**

Last, we were **pleased with the final sentence on recommendation 5** that faculty hiring, promotion, tenure and post-tenure reviews should include the expectation of high-quality interactions with undergraduates. **This will be essential** to achieving the above goal.

CDN Board Report

Recommendation 5, I agree with wholeheartedly. It seems to me, though, that there will be a marked **resource issue** with regard to UM faculty, and I’m going to suggest that senior administrators, senior (and perhaps associate academic advisers), P/As with terminal degrees, senior lecturers, and even, perhaps, appropriate community members be **eligible to sponsor or supervise such work.** I think the issue here is the **quality of the work and the quality of the learning interaction**, and there

are any number of staff here who are not technically “a faculty member” who could provide high quality oversight and supervision. I realize that we certainly want to highlight faculty responsibility and responsiveness to student needs, my sense is, in reading some of the other reports, that the **faculty workload would seem to double under the scenarios some of these Task Forces are proposing.**

I’m wondering if we should start a **University-wide community/adjunct faculty database (M.A. required minimum) with brief bios and areas of expertise, that students could tap in doing their projects.** A \$500 a year stipend/honorarium might get a highly educated, highly trained professional to give students, maybe one or two a year, close interaction on a project basis. Just a thought, along the line of PIL community faculty.

Joshua Borowicz

I found this report to be the **most balanced I've read so far in considering the contributions of both faculty and staff. I endorse the recommendations to provide consistent University- wide support, training and standards for advisors.** Such support will foster a stated goal of the report, to retain academic advisors, so that students can receive guidance and mentoring from the same staff throughout their attendance at the U.

I also **support the recommendation for mentoring from faculty for all undergraduate students through work on papers or projects.** I was lucky to have three faculty, including my advisor, and three graduate teaching assistants take an interest in my studies and my intellectual and personal development during my undergraduate years at UW-Madison in the early 1970s. They not only recommended the classes I would need to complete my degree, but suggested books and even gently corrected me when I made flawed intellectual extrapolations from the limited reading I had done at that time. I continued to write and visit three of these mentors for many years after I graduated and credit them for my continued intellectual curiosity after I completed my degree.

I **applaud the idea that every faculty member act as a mentor to undergraduate students.** The excitement they bring from being involved in research can be inspiring to students, whose projects can, in turn, rejuvenate professors. **But other task force recommendations and other initiatives of late, ask for more time and responsibility to be exercised by faculty.** For example, the graduate student support task force suggests using grant funding to buy-back time from instruction to devote to grant-writing and graduate student research mentoring (also worthwhile goals). **I am concerned** that undergraduate interaction with faculty has suffered over the years, due research, grant, administrative and other demands. **Partnerships with P&A to adequately deal with all of the demands on the entire academic community can contribute toward solutions.**

I realize that recommendations from this task force and every other one I have read so far involve additional financial investments - though it seems to me that the requests by this task force are more modest than those of many other committees. **I wonder how additional funds will be found and am concerned that some initiatives might be funded at the expense of others and at the expense of existing programs that have already been squeezed over the last several years.**

Randall Croce, Staff

We **support the recommendation** for every undergraduate student to complete a scholarly creative, professional or research experience. In the health professions, this type of student activity will establish a foundation for students to demonstrate critical-thinking skills, research skills and professionalism required for students on a pathway to a health career in practice or research.

AHC Office of Education Staff

One area of concern is that in discussing recommendation #5 - to "require every undergraduate complete a scholarly, creative, professional, or research experience with a University of Minnesota faculty member" - **the contribution of the Multicultural Summer Research Opportunity Program (1986-to date) nor the Ronald E. McNair Post-baccalaureate Achievement Program (at least ten years on this campus) were mentioned as having made a contribution to providing mentoring relationships for students traditionally underrepresented in higher education. It would be cause for alarm** if these two programs were not available to offer a scholarly, creative, professional, or research experience for students from communities previously underrepresented in our University.

Senate Committee on Equity, Access & Diversity

5. Finally, Recommendation 5, especially given its **wonderfully inclusive definition of “scholarly work,” is already a reality at Student Writing Support**. All undergraduate tutors at the center take a rigorous course in tutoring theory and practice, and they all complete a substantial piece of writing center research as part of their coursework. Their colleagues, who include graduate student TAs, act as informal mentors in the center and as guest presenters in the class. And the course instructor, herself a scholar of writing instruction and student learning as well as a practicing writing consultant, offers both scholarly and pedagogical mentoring in an integrated way that few other programs can achieve.

Ultimately, all of this mentoring and instruction ripples out into the student community as a whole: student writing consultants not only benefit from engaging in research and practice at SWS, but the student writers whom they support in turn gain skills and strategies for the kinds of critical writing and thinking that ensure success in the University and beyond. **I hope that whoever is charged with designing the requirement for scholarly, creative, professional, or research experience will consider the Center for Writing’s staff and student writing consultants, all of whom demonstrate an ongoing commitment to student-centered professional development.**

Katie Levin, Staff

Footnote 20 (p. 9): **Integrate this footnote** at the beginning of Part IV and within Recommendation #5.

Recommendation #5 (p. 9, first bullet): **Why is the UROP program specifically mentioned?** It is previously stated that the definition of scholarly work is broad, yet the two bulleted recommendations are heavily research focused and seem to be the only way to accomplish this goal. These **two bullets should reiterate the need for collaboration** between all professionals who work with students so that this co-curricular experience can be a meaningful experience for students.

Rec. 5: Public/Civic Engagement Focus

The mission of the task force speaks to improving student outcomes and enhancing the total student experience. **Engagement and life outside the classroom are not explicitly addressed** in the 6 recommendations.

One of the stated **goals is to prepare students to be leaders in a global society.....again, this is not explicitly addressed.** It makes some sense that as an institution, we should expect our students to develop civic skills that will prepare them to be educated, engaged citizens. **I do not see any reference to leadership development/civic engagement/student engagement in and out of the classroom.** These are natural vehicles to prepare students to “become leaders in a global society.” We recently interviewed and videotaped 12 students. They defined engagement and talked about their undergraduate path and experiences. Every student highlighted the impact of their engagement experiences and every student was able to articulate **how these experiences helped to develop civic skills such as critical thinking, communication, adaptability, civic responsibility, conflict management and developing meaningful relationships.** Several students were also very articulate in describing how these practical experiences **provided a context for applying what they were learning in the classroom.**

June Nobbe, Director of Leadership Programs in the Office for Student Affairs

On a brief reading of the report, **nothing egregiously wrong – and much that was right** – jumped out at me. Good work by all! Of course, I would have liked to see **public/civic engagement more prominently mentioned and championed, but it was in the report in appropriate ways.**

Victor Bloomfield, Associate Vice President for Public Engagement

In my opinion the task force **report reflects the care that the committee took to include the interests and concerns that represent the diversity of our undergraduate student body.** One area of concern is that in discussing the recommendation to "require every undergraduate complete a scholarly, creative, professional, or research experience with a University of Minnesota faculty member" the contribution of the **Multicultural Summer Research Opportunity Program** (1986-to date) **nor the Ronald E. McNair Post-baccalaureate Achievement Program** (at least ten years on this campus) were mentioned as having made a contribution to providing mentoring relationships for students traditionally underrepresented in higher education. **I would be concerned that in implementing this recommendation, traditionally underrepresented students would lose an option for having the type of experience promoted in this recommendation.**

It is my opinion that **this recommendation is completely in line with the direction that the Graduate School is proposing for 2006-2007 as we discuss program growth as it relates to UROP, UROP Scholars, Multicultural Summer Research Program, and coordination of University summer research program activities. Both UROP and MSROP are poised to enhance the intellectual experience of undergraduate researchers. Our limitation in growing the programs,**

quantitatively and qualitatively, has been shrinking budgets resulting staffing reductions. Both UROP and MSROP (a.k.a. SuperValu Summer Research Program and Minority Scholars Development Program) are approaching a third decade of existence and primed to take advantage of this renewed emphasis on the quality of educational experience offered by this major research university.

Patricia Jones Whyte, Staff

Finally, we have **particular reservations** regarding the **recommendation that every undergraduate complete a scholarly, creative, professional, or research experience with a UMN faculty member.** CLA has a long history of strong faculty involvement with the scholarly and creative work of our undergraduates through requirements such as the senior project and curricular options such as the Undergraduate Research Opportunities Program. However, **the scale of our instructional commitments precludes the radical expansion of such efforts.** The establishment of formal mentoring relationships with each of our more than 14,000 students would represent an enormous additional investment of faculty resources. Our concern with the feasibility of the recommendation remains even if the formal mentoring relationships are confined primarily to juniors and seniors. In sum, **we wonder if this recommendation represents the optimal strategy for enhancing faculty/student involvement in a manner consistent with our aim of becoming one of the world's top three public research universities.**

Riv Ellen Prell, Vice-Chair, CLA Council of Chairs

Recommendation 6

Develop a program for new faculty that promotes a focus on using learning outcomes, communicating high expectations, and mentoring undergraduates.

Comments on **Recommendation 6**: I'd like to see a **program like this jointly sponsored, planned, and facilitated by Center for Teaching and Learning Services, Council on Enhancing Student Learning, and SMART under the leadership of the Provost for Faculty Programs. I'd also to see a close collaboration with New Student Orientations. I'd like to see our students and faculty getting the same messages regarding these expectations. Ideally, both new student orientation and new faculty orientation should include conversations where students and faculty talk together about expectations and responsibilities for student success.**

I'd also recommend **promoting student learning communities across the university.** A great variety of student learning communities currently exist at the U of MN. I think we should **collect information about the existing models, support the development of new models and the adoption of existing models in new places.** The research support on the positive effects of learning communities is overwhelming.

Connie Tzenis, Staff

Regarding **recommendation #6: I suggest that this program for new faculty be required, with results expected and rewarded in promotion and tenure.** I did not see this characteristic in the description.

Beverly Atkinson, Staff

In **Rec #6** consider changing term faculty to instructors to be more inclusive of graduate students who teach

Public Forum notes

Recommendation 6, yes, but I think **faculty advising, in most cases, is most effective on disciplinary, academic, and research oriented subjects,** and their advising expertise most effective the closer it is to their scholarly agenda. Some, no doubt, will be wonderful generalists as well, but they're born, not trained.

Joshua Borowicz

I fully support the student support task force's mission of "putting students first": so much of the work that I do--and the part of my job at the U that I enjoy most--is helping students develop as writers and thinkers via student-centered one-to-one writing instruction. As a teacher, I also am excited by the

recommendation that the U develop a faculty orientation program, especially given its goals of familiarizing new faculty with “student support services, and...programs and strategies that promote teaching scholarship” (10).

1. Along with the Center for Teaching and Learning Service’s current programs, the **Center for Writing promotes teaching scholarship through its year-long series of faculty workshops** and through its annual seminar on Teaching With Writing. This seminar introduces faculty from across the curriculum to important scholarship on student learning, and it supports substantial collaboration among faculty from far-flung disciplines, all of whom share strategies they’ve used to study and assess their own teaching.

Katie Levin, Staff

Program for new faculty focused on learning outcomes- page 10

Comment: The Administrative Service & Productivity Steering Committee hopes to ultimately create a **more results-based culture at the University**. This **recommendation fits with the spirit** of this ideal cultural attribute.

Administrative Service & Productivity Steering Committee

General Feedback

I was **very impressed** after reading the recommendations made for undergraduate reform: student services, especially when I saw those 5 little words: to put our students first. If the University is to keep making headway in this extremely competitive world we must prove and provide a way to retain, satisfy and support our undergraduate students toward their graduation. The competition they face among their classmates is tremendous...therefore, **we, the university community should be able to show them our focus is to assist them in their goals.** There is no better way for any business to achieve success than to have its consumers satisfied. We are in the business of educating for the future...**right now we have to find and provide ways to support our students.** If we can do anything at all, it should be to have the mantra: **to put our students first.** This will help to focus actions toward their success, and then we will have been successful in all our endeavors.

Roseanne Eschle, Faculty

I clearly think that **more research needs to be done before these actions are put into action.** The University is planning on taking the college in a new direction but the actions are not vastly reforming they just work to help better current actions. If the University wants to be successful then they are going to need to **take a new approach completely.** (...) The report states that we need to focus on **educating the minority population** and work to have better teaching methods for this population. This **does not coincide with the direction** that the University wishes to take, otherwise GC would not be getting disbanded. **If the University wants to be really successful with their research rankings they need to continue to acquire and develop relationships with businesses and the government.** If the University has interesting cutting-edge projects it is working on, they will have the means to attract the high performing students that they wish to have. I do not feel that by helping our current projects and student population the University can spring forward to being ranked one of the top 3 research Universities.

Benjamin Lehman, Student

Teaching:

The student evaluation process does not work!!! We need something else in place that requires supervision and monitoring by peers. This is coming from a senior faculty member with excellent reviews for many years. Here are the reasons:

- a) The questions are off the mark. How can the students judge the knowledge of an instructor?
- b) The online system is encouraging only students with complaints to submit.
- c) A good teacher has a long-term effect on the life of a student. How do you measure that with the current system?
- d) How do you promote and evaluate innovations in teaching?

e) Their tie with the promotion-tenure system promotes grade inflation. Many people say: "Why should I care? I give out an A to everybody!"

Several departments have a very heavy teaching load. Having to teach two-three classes per semester means no research. Give teaching load relief to your best people in order to spend some time on research!

Research:

Research is geared towards money and not quality. This comment is from someone who brings millions of dollars every year. We are forced to bring in questionable contracts that have no research component. The University should have a different unit/lab to handle this case like the MIT Lincoln Labs.

Salaries should be tied to your research and teaching productivity. If the difference in salary is a couple of hundred dollars, why should I work harder to do quality research?

Improve the bureaucracy. For example, starting a company is a nightmare of navigating through a thousand rules. Accounting is a mess. Ordering through eBay can save millions of dollars. It took me six months to convince my departmental administration to simply understand that eBay exists.

Revamp the Office of Business Development and the Patents Office.

Give generous bonuses for large contracts, international awards, etc.

General:

Do exit interviews to the faculty who are leaving. The majority of them leave because their departments are mediocre or administrators fail to appreciate their potential. Addressing the benefits issues (parking, day-care, tuition for kids, etc.) would be a first step. I waited nine years to get a parking spot close to my office.

Address two-body cases in a unified and effective way like at UIUC and Iowa.

You cannot be a top three place unless you act and operate like one. People are there for a reason.

Several colleagues are here for the city primarily, and not the University per se.

Keep the diversity and multi-disciplinary in place. I am here because I could work with a person in linguistics as well as with a person in entomology. **UMN is very unique in that regard.**

Nikos Papanikolopoulos/Faculty

The Task Force for Undergraduate Student Support states in their summary that their first and foremost foundational principle was to put students first. It sort of surprised me because I didn't think that statement needed to be secured in writing, I assumed that everyone worked to achieve that principle the University of Minnesota is an educational institution whose very livelihood and success is derived from the students who go here. The Task Force recommendations support this ideology. It is **imperative that we provide the support and assistance our students need to succeed at the**

college level. **Without a strong central support system, we are neglecting our role as educators and advisors and as a result, we are denying our students their right to a gratifying and enriching college experience.** I am asking you to please support our work and our dedication to providing for the lives that are the future of this institution. The task force talks about ensuring graduation rates, investing and strengthening academic and career advising and improving overall student experiences, how can that be denied? **That is an integral part of going to college and to cut funding from this central piece all for the love of a national rank seems preposterous and outrageous.** The students here, at the U of M, deserve our undivided attention and therefore, we need the support of the entire institution if we are going to succeed and uphold the reputation of this historic and accredited institution.

Debbie Peters, Staff

As the parent of a student at the University, I have been **appalled at how poor the services are** for my son. Over and over again he has had classes changed and cancelled with no, or insufficient, prior notice. He has had classes where he was unable to purchase the text until several weeks into the semester. He has had classes where he was required to buy expensive books that were scarcely used. He has had serious mis-information provided by advisors, and more frequently important information not provided. **In short, he has had his time, energy and financial resources wasted. In consequence, I have told my daughter, currently a high school junior, that I did (ed. Note: not?) want her to even think about going to the University.**

Before coming to the University, I worked for eight years at the **University of St. Thomas**. If you want to learn something about how to treat students, I highly suggest you travel a few miles and **spend a little time at that institution**. They have a palpable sense of service to students, and this begins by **valuing student's time. They also have a genuine knowledge of process improvement, something that is completely lacking at the University**. Consequently, if a given process is failing students, the institution knows how to correct it. I have worked at the U. of Minn for eight years, and **I have never seen a process improved. Never.**

While some of these issues are probably perceived as belonging to the administrative side of reform, I don't think you can really separate administrative and academics on these issues. When a student is frustrated and his or her time wasted by bad processes, it can effect them academically. **Frustration is not conducive to clear thinking.**

Thomas Schenk, Staff

This comment pertains to **metrics used to evaluate performance of any collegiate unit and thus applies to any of the task force reports that include such recommendations.**

I would suggest that some **measure of student attitudes** (e.g. motivation to learn, desire to contribute to the common good, motivation to excel in whatever career they choose) and some **measure of what gives a student intrinsic rewards be administered both upon entrance and upon graduation to gauge the impact the University experience has had in these areas.**

I realize these would be very controversial metrics and some would say very difficult to measure (though psychologist can measure values and attitudes), but to measure just knowledge gain and graduation rates and related items is to leave out much of the higher purpose for learning and the reason Universities exist.

John Mauriel, Faculty, Community Member

Need to connect the deliverables with the recommendations better

Definition of scholarly experience in the report is broad, which is good, but it is not included in the executive summary

The mentoring relationship should not be confined to faculty

There is a lack of reference to Learning Reconsidered-lack of acknowledgement that learning for students takes place inside and outside of the classroom; education of students is a joint effort, not just the role of faculty

Suggestions for ways to take advantage of the **unique aspects of being in a metropolitan area**-internships, civic engagement opportunities

Make it clear what outcomes are for improved advising, how do we assess what we do

Broad examination of student-progress policies should be considered

Consider making advising mandatory throughout college career

Be more inclusive of student development needs

Are advisors aware of assessment tools that exist for students

Be more clear about the value of diversity in the report

Perhaps add a **statement of core values at the beginning of the report** (diversity, putting students first, and value of the co-curricular experience-AW's thought)

Notes from public forum on January 25, 2006

The COC did express **several concerns**, however. **We would like to better understand the strengths and weaknesses of the student support efforts currently in place.** We also believe the report should **include a description of the measurable outcomes we are trying to achieve, the specific means by which the task force recommendations will move us closer to these goals, and how their achievement will support key campus success measures** such as improved retention and timely graduation rates.

Riv Ellen Prell, Vice-Chair, CLA Council of Chairs

The members of the Career Development Network (CDN) had an **overall positive reaction** to much of the Student Support Task Force Executive Summary but felt that the **document had a significant emphasis on academic advising**. One way that this was present was through language used to describe career staff on campus. Most career professionals at the University of Minnesota consider themselves Career Counselors rather than Career Advisors. **Many CDN members were uncomfortable with being referred to as advisors since we believe the roles of advisors and counselors are distinctly different.**

The use of the title **“Career Advisor”** also caused some confusion while reading the report. When the document referred to advisors/advising, we were uncertain if the statement was intended to include career counselors. **Clarification of this language** throughout the document would more accurately describe our roles at the University as well as clarify some of the recommendations.

We feel compelled to mention that there are important distinctions in the roles and tasks of Career Counselors and Academic Advisors at the University of Minnesota and nationally. The nature of academic advising is developing relationships and sharing collegiate information and referrals so students make educated decisions about their educational paths. According to the National Academic Advising Association (NACADA), academic advisors work is intended to “assist students in the development of meaningful educational plans that are compatible with their life goals.”³ At the University of Minnesota academic advising staff has a wide range of educational backgrounds.

Career Counseling as defined by the National Career Development Association (NCDA) is “the process of assisting individuals in the development of a life-career with focus on the definition of the worker role and how that role interacts with other life roles.”⁴ Career counseling requires more specialized training and education as outlined in detail by NCDA. This training is reflected here on campus as most career counselors at the University of Minnesota have Master’s Degrees in Counseling, Student Personnel or a closely related field.

¹ See NACADA Academic Advising Program CAS Standards and Guidelines at http://www.nacada.ksu.edu/Clearinghouse/Research_Related/CASStandardsForAdvising.pdf

¹ See NCDA Career Counseling Competencies at <http://www.ncda.org/pdf/counselingcompetencies.pdf>

CDN Board Response

Page 3 – Section 2

“...suggest that the University Explores developing a centralized Web-based repository of reports from task forces and committees.”

We **strongly support** the concept of a centralized web-based information source. It is difficult to determine what research and surveys have already been done and it is also difficult to access and benefit from the work of University committees.

⁴ See NCDA Career Counseling Competencies at <http://www.ncda.org/pdf/counselingcompetencies.pdf>

The Career Development Network does have a web based information resource system, **www.career.umn.edu which could serve as a model for information sharing.** Portions of this web site include campus-wide career information for employers and students, while a password protected section of the web site includes committee reports, meeting minutes and other documents of interest to CDN members.

Conclusion

The CDN Board feels very positive about many of the recommendations in this report and appreciate having input into the process both before this draft was written and afterward. We are eager to be involved in the implementation process since we feel we would have a lot of unique ideas and insights to provide during that process.

CDN Board Report

I was **extremely pleased** to read the recommendations of the task force on undergrad-student support. To me, the **role of the adviser** in a successful student experience is truly critical and it was wonderful to read the recommendations and research used to support them. **Sincerely hope those recommendations make it to the implementation phases.** Thank you for this opportunity to comment.

Linda (Walley) Hildebrant, Student

This is an excellent report. I have nothing more to add. Thanks for sharing.

Sue Van Voorhis

I have read the report and think the Task Force has done an outstanding job. Bravo!

Wayne

Agree whole-heartedly on the concept of “put[ting] our students first,” on student- or learner-centeredness. **We must remember, though, that students did not play a central role in the development of these recommendations.** It is difficult to imagine how they could have under the circumstances.

Recommendations 1, 3, and 4 read fairly innocuously and generically; however, in their details they indicate (and I’d agree) a need for not only central support and coordination of a common advising culture, but some central direction, authority, and accountability. While I believe that advising systems and the day-to-day operation should be college-centered and based on a more local but still broadly disciplinary culture typical of the college, I also think that the impulse toward commonality will require clear leadership at the university level, specific authority and accountability. **Somewhat of a federal model.**

Joshua Borowicz

A hallmark of the UMTC graduate should be that s/he not only has had opportunities to participate in enriched, stimulating co-curricular opportunities, but that the **student is able to effectively articulate what was gained from these experiences**. Although the Twin Cities environment and the talented faculty and staff we have assembled create a wonderful environment for learning, it is not likely that our students will, on average, have distinctively different educational and academic experiences than students at other top, Research I institutions. I believe our opportunity to develop graduates whose preparation reflects "top three" standards **resides in creating an advising/mentoring environment that focuses on creating time and space for students to reflect, orally and in writing, on their learning experiences. It is in the act of reflection that real learning occurs, and I think we should seize upon this reality as a guiding principle in transforming undergraduate education.**

Many of us at the University are equipped to, and interested in, playing an educational role in our students' lives. Helping, encouraging, and prodding students to think through their experiences and capture in words what they have gone through is something educators of all types and stripes can do.

I think this idea underlies much of what you are trying to accomplish in your recommendations, but perhaps it could be stated more directly.

Jerry Rinehart, Faculty

Support reflects the care that the committee took to include the interests and concerns that represent the diversity of our undergraduate student body. The committee consulted with representatives of collegiate units, academic support units, students, academic advising personnel, central administrators, and alumni in arriving at the recommendations forwarded to the Provost.

Three of the six recommendations (#1, #2, and #3) specifically make reference to populations traditionally underrepresented in higher education, innovative pedagogies, just in time advising, and effective referrals that ensure all undergraduate students have a fair chance of completing the baccalaureate in a timely manner. The recommendations also seek to create an intellectual environment that is inclusive of all students.

The fourth and sixth recommendations do not speak to specific populations, but if properly implemented, would address gaps in the undergraduate experience that would empower all students.

Senate Committee on Equity, Access & Diversity

I appreciated attending the commentary period this week, and will include below some of my observations made then, as well as some that have occurred to me subsequently. One initial comment: **I applaud and appreciate the hard work and dedication of your group, and expect good results from these recommendations.**

Where "undecided" students are mentioned, I'd suggest "transitioning" or "exploratory." I'm not sure where this came up, or if it was just in the commentary period.

In discussions of advising and career services, there was a persistent sense that these are generally separate sets of personnel, offices, programs, etc. In our experience in General College, we have

integrated career and academic advising quite a bit, while maintaining a career and transfer resource. Since we work with lower-division students, we integrate career interest exploration into all of our academic advising, especially since so many students who think they have made a decision instead end up choosing to - or having to - change their initial major. **I'd recommend some language recognizing the benefits of more collaboration and integration of career and academic advising.**

One of the key **recommendations, #2**, was the formation of a “center for the scholarship of college teaching and learning.” I think it would make sense, now that all the task group draft reports are available, to recognize in the student services report that **such a mission is proposed as a core function of the department formerly known as General College, as it moves into the new College of Education and Human Development. Similarly, discussion of Recommendation #6 should acknowledge the existence and good work of the Center for Teaching and Learning Services, and suggest how that work can be enhanced or repositioned.**

Following on some of my comments in the open forum, I'd like to **stress the importance of an inclusive group of stakeholders in the work of Recommendations #4 and #1, which seem to me to be linked and also to be the first priority in implementing this set of proposals. The next step would then be #3, which would follow along from the goals and the models created in #4 and #1. I would see student services professionals as well as students contributing to the research, design, and detailed recommendations for an enhanced University-wide model of student services delivery.**

Great work, folks! Hope this report is taken seriously, and that **student services is given the resources and respect** that will contribute to student success and to the University's success in reaching its goal of being a top world research institution.

Mary Ellen Shaw, Staff

In discussing the Student Support task force recommendations, the feeling of the committee was that it was **more modest in scope than the other task force initiatives, at least in terms of asking for new administrative positions; the task force did however make a recommendation for central investment in student support as a common good**, which Professor McCormick supported, saying that advising for students deserved such an investment across the university.

Senate Committee on Educational Policy

Indeed, even though it is not mentioned in the report, **the Center for Writing's current practice is very much aligned with the task force's vision. Specifically, I think it is important for the Provost to know that the Center for Writing is already implementing many of the very recommendations that the report suggests we need new resources to do:**

2. The report cautions that “many of our current educational and service activities for undergraduates are conducted on the basis of anecdote and historical precedent rather than on the basis of data and results” (4). This is **emphatically not the case for Student Writing Support, which in fact meticulously keeps track of data—both qualitative and quantitative—and on scholarly research as it continually assesses and, as appropriate, refines its practice. Indeed, based on my experience here and at one of our peer institutions, I would suggest that Student Writing Support is a model for the “culture and expectation of scholarly analysis and action” that the report commends.**

Before I provide constructive feedback, I first want to acknowledge the commitment and dedication of this task force. It is easy to read a document and provide opinions, but I realize it is much harder to take deliverables, interview many people, hold open forums and then consolidate the spirit of all comments and perspectives in a short document. Thanks for your commitment and efforts.

My thoughts are random and not in any particular order.

Feedback:

- There is **disconnect between the mission, deliverables, and recommendations. If Recommendation 1 is the overarching recommendation, then perhaps all other recommendations could be goals of the recommendation.**
- This document is very academically and faculty focused. Interviewing more Student Affairs people would have provided more depth and enrichment to your report. It would have also represented the entire student experience, which includes the co-curricular experiences that enhance academic experiences. **Being invited to be interviewed by the committee is very different than just having an open forum and hoping to obtain that perspective by individuals self-selecting to come and offer their perspectives. It diminishes the role and impact that Student Affairs and Student Services areas have on the student experience, as well as makes individuals who will be called upon to assist in the implementation of many recommendations feel disconnected and apathetic to the process.** “Learning Reconsidered (ACPA and NASPA, 2004) defines learning as a comprehensive, holistic, transformative activity that integrates academic learning and student development, processes that have often been considered separate, and even independent of each other.” (pg. 4) **This could be elaborated on in the first bullet of Recommendation #1.**
- The **diversity piece and serving under-represented populations should be integrated across the document.** Having it in the footnote is less than providing lip service to diversity.
- **Consideration should be given to the informal advising** that occurs all over campus in other offices that are not academically focused. Many professionals in Student Affairs provide daily advising to students about their overall experience.
- I agree with the notion that **more resources need to be allocated** to support workloads of academic advisors. Academic advisors hardly have enough time to advise and register all of their students, let alone build meaningful relationships with them and work with students on personal and leadership development.
- **I am not sure that it is clearly explained how recommendation #2 and #6 will directly impact the student experience and how it supports “putting our students first”.** The idea is sound, but it seems a bit lofty to think that faculty will jump on board. Additionally, **staff and peers should be added as mentors.** There are many faculty should not mentor students as it would not be a productive relationship.
- While I understand that this is a research institution and it is important that our students are engaged in academic research activities, **is it not just as important that our students are engaged in becoming lifelong learners and productive citizens in the community? This message is not clear**

in the document. It is very academic focused. **Maybe this could be elaborated on when talking about “scholarly work” in recommendation #5. While it is defined broadly in the paragraph on page 9, it is inconsistent with the bullets listed---UROP would not be the only place these types of activities need to be funded and supported. The first bullet seems like a hidden agenda. The second bullet should include “other departments”, not just colleges and programs. A bullet could be created to discuss co-curricular experiences (study abroad, internships, service-learning, community involvement).**

- **Welcome Week should be moved under Recommendation #1** as it relates to “ensuring a welcoming learning environment” as well as “a campus-wide approach to student support programs”. **Welcome Week could also be described as a substantive program which enhances the orientation process and continues to assist students with their transition and messages of what it means to be a new student at the U.**
- **Consideration should be given to the undecided student.** From what I understand, there is not a clear process for students to transfer from one college to another internally. **This could be addressed in the section that talks about models and structures for advising ensuring a process for internal transfers.**
- There is inequality among the support services students receive depending on the college they are in. **This creates feelings of inequalities among students. This could be emphasized a little more in recommendation 3.**
- **I agree that providing assessment and holding departments accountable is a key point.**

Beth Lingren, Staff

First, I would like to thank the task force for their contributions of time, effort, and patience to the strategic positioning process. After attending one of the open forums, I have greater appreciation for the challenges this process poses.

With regards to the executive summary, I think that there is a **disconnect between the deliverables and the recommendations**. While I understand that the deliverables were not created by the task force, I think there are **ways that the recommendations can be better articulated**. The **first recommendation**, "establish an integrated, campus-wide approach to student support programs and resources, with both authority and accountability for student success", **does not seem to be in line with the other recommendations, but rather an overarching goal of all student support reforms. It seems that each of the subsequent recommendations support this single goal**. Without an integrated, campus wide approach to student services, the other recommendations would not be possible. **I would urge the task force to reconsider the structure of these recommendations.**

I would encourage the task force to **consider expanding upon the concept of "scholarship" in the executive summary**. While well articulated in the full report, most readers will only read the executive summary and therefore will fail to understand the scope of what “scholarship” entails. The full report does a nice job defining scholarship in a complete and holistic way. The summary should capture this spirit.

In addition, I would challenge the task force to **address diversity in a more outward and explicit fashion. More specifically, the diversity of our community should not be reduced to a footnote in a bulleted item under one recommendation.** It should be stated upfront that students come from diverse backgrounds, with a breadth of experiences, and a wide variety of needs. **These recommendations need to express these differences and the task force should outwardly declare our appreciation for such differences.**

One of the things that was **most bothersome about the report was the strong focus on services, resources, and opinions of those on the academic side of campus. Most specifically, why weren't more individuals from student affairs interviewed during this process?** Although all members of the university community were invited to participate in open forums, this general call is not equivalent to a personal request. **I feel that both the process, and the language used in the document, leaves out an important segment of our university community... those working outside of the academic arena who are equally committed to the full development of our students. As Learning Reconsidered¹ illuminates, the resources of the entire campus community should be pooled for the education, preparation, and development of the student.** Teaching and learning do not just take place in the halls of our academic buildings. I challenge the task force to **broaden their perspective of who contributes to the success of our students and where teaching and learning take place.**

Kathleen Granholm, Staff

My main personal comment is that I'd just like to say **"thank you" to the task force for putting the report together. I'm excited about the ideas, and I hope that they will be implemented!**

In CLA, we are greatly challenged by our relatively low numbers of career services staff members. We certainly do the best we can and are proud of the services we offer. With a great staff, with a little creativity and support from CLA to hire adjunct course instructors or other part-time help, and by partnering with our peers in other career services offices on events like the U of M Job Fair, we've been able to expand the number of students we've served in recent years. **But still, I fear that our relatively small number of full-time staff members sometimes means that we're just not able to offer the same level of services as other colleges do.**

I also appreciate your other comments on supporting the work that staff does in other ways; sometimes I feel like **I spend a disproportionate amount of time helping my staff work with** facilities that are clearly less suitable than those occupied by other career services offices on campus, trying to help my staff cope with the knowledge that their salaries are lower than those of similarly-trained peers in other campus career offices, or dealing with the departure of a staff member who has left us to take a much more highly paid position—with a similar level of responsibility—in another career office at the U or elsewhere in the Twin Cities. **In my office and in many offices across campus, we have some incredibly talented, dedicated people. I hope that we can identify the people who produce results, retain them, and allow them do more of what they are already doing.**

So, thanks very much for your work on the report and for the opportunity to provide feedback.

Paul Timmins, Staff

Financial Concerns

The Twin Cities Deans were in **general agreement with recommendations #1, #3, #4, and #6**, but were **concerned about the cost** of a campus-wide academic advising and career counseling program, as well as the **logistics** of such a program. The feeling was, however, that further analysis is worthwhile.

Steven Crouch and Bob Elde (on behalf of the Twin Cities Deans)

I believe that the University also needs to **take a good look at many of the jobs it has and decide which jobs are beneficial and which jobs could be cut**. With all these initiatives being placed into action tuition costs are going to sky rocket and in order to help contain these costs all areas must be assessed so that expenses can be minimized. I know personally of many jobs that it would not hurt the U to eliminate. These are a few thoughts and recommendations that I have for the task force and the University in general.

Benjamin Lehman, Student

The big white elephant in the room which was not mentioned is **money**; how many students hold full/part time jobs to pay for their degrees? How many of those wonderful opportunities to study abroad apply only to students who can afford to go, and who come from families that have been encouraging to their aspirations, and who therefore would have completed their degree in a timely way whether they had gone abroad or not? How many fellowships are offered to the less well off student to go abroad? **Another ideal for your consideration: every student should be able to spend at least one year of their undergraduate career not having to hold down a job as well as studying.**

Maria J. Fitzgerald, Faculty

Re: Staff Compensation.

I think it is **the responsibility of the University to pay its employees a wage that does not make them eligible for federally subsidized housing (e.g. less than \$34,500 a year; or Section 8 Housing)**. Although 7 Corners Apartments are close to the University, I think most staff members do not want to live there. **There is no reason to pay people with advanced degrees this low wage; especially when private sector employment in related fields (e.g. Capella) will pay \$18,000 more to start**. We are not looking to buy BMW's, but we are looking to purchase a new(er) car once every 10 years or so, and some of us who cannot depend on a spouse for income would like to buy a house somewhere in the cities and not commute 3 hours a day. While a wage in the low 30's certainly does not put someone on Food Stamps, it does put necessary purchases, such as a house, on a timetable that is measured more closely to 10 to 15 years worth of savings.

Thank you for your time.

Bob, Staff

As an academic advisor for more than two decades, I enthusiastically endorse the recommendations of this task force, especially as they relate to the **responsibilities of and appropriate compensation for advisors**. If we are to become one of the top three public universities, support for undergraduates from both faculty members and college and department academic (and career) advisors is essential. In an ever more complex world, guidance for young people beginning their adult lives is more crucial than ever. For far too long, **many advisors on campus have been poorly compensated for the extremely important and demanding work they do.**

Christine Mack Gordon, Staff

Appendix 6: Student Learning Outcomes

Proposed Undergraduate Learning Outcomes University of Minnesota – Twin Cities

Provost's Council on Enhancing Student Learning

Foundational life-long learning and citizenship goals <i>At the time of receiving a bachelor's degree, students will demonstrate:</i>	Elaboration/Examples <i>University of Minnesota graduates:</i>
1. the ability to identify, define, and solve problems	<ul style="list-style-type: none"> • recognize the complexity and ambiguity inherent in many problems • can evaluate and synthesize knowledge and frame logical arguments based on this knowledge • understand and use the scientific method and other modes of problem solving
2. the ability to locate and evaluate information	<ul style="list-style-type: none"> • can access information as needed and work effectively with modern information technologies • understand and practice the responsible and ethical use of information
3. mastery of a body of knowledge and mode of inquiry	<ul style="list-style-type: none"> • know the facts, theories, and concepts central to their discipline • display appropriate disciplinary literacy and sophistication • understand the relationships between the methods and content of their discipline • understand the social and ethical context and implications of disciplinary knowledge and endeavors
4. an understanding of diverse philosophies and cultures in a global society	<ul style="list-style-type: none"> • understand the philosophical, artistic, scientific, and political roots of civilization • are able to put issues in their historical, philosophical, and societal context • can work with individuals from diverse backgrounds, perspectives, and disciplines
5. the ability to communicate effectively	<ul style="list-style-type: none"> • communicate ideas and information effectively in appropriate formats to different audiences and in different contexts • engage in constructive discussion by listening accurately, understanding the perspectives of others, and demonstrating civility and respect
6. an understanding of the role of creativity, innovation, discovery, and expression in the arts and humanities and in the natural and social sciences	<ul style="list-style-type: none"> • possess a sufficient foundational knowledge to understand applications and impacts of art, humanities, and science on daily life • can make aesthetic and logical judgments • understand connections between disciplines
7. skills for effective citizenship and life-long learning	<ul style="list-style-type: none"> • display intellectual curiosity, flexibility, and openness • are able to reflect upon and articulate their own values • understand and practice professional and ethical behavior • are aware of personal strengths and weaknesses and are prepared for life after college (see Rinehart document) • understand the nature and importance of responsible citizenship

Student Success Outcomes (co-curricular learning outcomes)

The successful University of Minnesota student engages in activities which develop and demonstrate achievement in several areas.

Responsibility and Accountability

- Makes appropriate decisions regarding his/her own behavior
- Recognizes and accepts consequences of actions
- Meets agreed upon expectations
- Follows through on commitments
- Willing to accept responsibility for personal errors
- Takes responsibility for his/her own learning

Independence and Interdependence

- Appropriately determines when to act alone and when to work or consult with others
- Demonstrates ability to initiate action and effectively engage others to enhance outcomes
- Works with minimum supervision whether it be alone or within a group
- Adapts behavior as appropriate in response to team or organization needs

Goal Orientation

- Manages energy and behavior to accomplish specific outcomes
- Possesses and maintains sufficient motivation to achieve goals.
- Has an understanding about how to use his/her talents and skills to contribute to the betterment of society
- Demonstrates effective planning and purposeful behavior
- Does not allow distractions to prevent timely completion of tasks
- Pushes self, when needed, to accomplish goals

Self-Confidence/Humility

- Maintains and projects optimistic perspective
- Expects the best from self and others
- Accurately assesses and articulates (when appropriate) personal strengths and weaknesses
- Shows interest in learning about others and their accomplishments
- Demonstrates ability to help others adapt to new situations

Resilience

- Able to recover from disappointment or bad experience and continue to work successfully
- Able to learn from a bad experience and recover
- Able to work through disappointments (i.e., what caused them, what can be done to avoid them next time, and what can be done to repair them now)

Appreciation of Differences

- Works effectively with others, despite differences; can respectfully discuss differences with others
- Recognizes advantages of moving outside existing “comfort zone”
- Seeks out others with different backgrounds and/or perspectives to improve decision making
- Appreciates the importance of diversity and conveys this value to others

- Understands and respects the values and beliefs of others

Tolerance of Ambiguity

- Demonstrates intellectual and emotional ability to perform in complicated environments and the absence of standard operating procedures.
- Can work under conditions of uncertainty

Office for Student Affairs

Appendix 7: Council on Enhancing Student Learning Advising Outcomes

CESL Advising and Research Advising Working Group

Today our task is not to teach all that we collectively know, to pass along our entire exogenetic heritage to each student, for that is impossible. Our duty as educators is [to] guide our students, to help them make choices, and to prevent them from sinking in the mud of their own freedom. Teaching and research alone are not enough. Thus it is no accident that advising and mentoring of students are more critical than ever. Yet virtually no American university does these things well. So too, our students take longer and longer to graduate, for the paths are many and the choices excruciating and time-consuming. How to fix this?ⁱ

Mark Yudof

Purpose

While continuing to meet a number of traditional needs, some of which are evolving rapidly, academic and research advising in higher education faces entirely new challenges. Nowhere in the academy is the response as complex as at a comprehensive public research institution. Thus, it is appropriate, as well as timely, to revisit our institutional practice, to update our conversation with some reference to select research findings and recent survey data, and to attempt to articulate a paradigm of shared expectations about the role of advising at the University of Minnesota. When students, faculty & staff, and administration have a common understanding about their respective responsibilities in this vital process, Learning Outcomes should improve. In advancing the following Principles, Learning Outcomes, and Roles & Responsibilities, we hope to begin and inform a conversation that leads to shared understanding and a common academic culture.

Background Discussion

In *Making the Most of College: Students Speak Their Minds*, Richard Light identified good academic advising as both the greatest challenge and "the single most underestimated feature of a great college experience." He further observed that the best students particularly appreciated advising and mentoring contacts that "force[d] them to *think about the relationship of their academic work to their personal lives.*"ⁱⁱ We concur that this thought process is the primary goal of the advising relationship. In 1991, The University's own Task Force on Liberal Education anticipated Light in its "A Liberal Education Agenda for the 1990s and Beyond," recommending "that the University develop a comprehensive, campus-wide strategy for improving academic advising, especially in relation to liberal education outcomes." Among the essential attitudes and qualities of mind that the Task Force identified as outcomes for a liberally educated person at a major research university was a "capacity for gaining perspective on one's own life." We would like to carry forward its hope to further enhance student advising at the University through an explicit and shared understanding of advising as the educational process best suited to develop a student's "capacity for gaining perspective on one's own life."ⁱⁱⁱ To that end, we propose that the University's advising system(s) take primary responsibility for advancing this elusive Learning Outcome.

While coursework and classroom processes, the structure of degree requirements, and co-curricular experiences all test our students' sense of self and prompt their capacities for gaining perspective on their own lives, we argue that the central role of Academic Advising be to help students personally synthesize, articulate, and direct their curricular, co-curricular, even extra-curricular learning to goals that are genuinely their own.

Through the advising relationship—peer, professional, and faculty— the student's capacity for gaining perspective on his or her own life is facilitated and coordinated along a number of lines:

- An exploration of University values, liberal education, and the role of research at this institution;
- A periodic and reflective self-assessment;
- An application of education to life choices and an understanding of the connection between the academic experience and goals for personal and career development, lifelong learning, and citizenship.

To achieve this Learning Outcome, students, faculty and staff advisers, and University administration must first agree that it should be the guiding principle of students' experience in advising. We are proposing it here. If accepted, we must articulate our respective responsibilities under this guiding principle, solicit feedback and wider agreement. Following is a draft statement of Roles and Responsibilities to begin the wider dialogue. Third, we must identify means of assessing our performance in achieving that outcome (specific assessment instruments—student portfolios, survey measures). Finally, we must develop processes that integrate feedback from outcomes assessment and student surveys to improve performance.

Draft Statement of Roles and Responsibilities

Student Roles and Responsibilities in Advising

As early as possible, commit to an informed academic plan clearly directed toward the completion of a University of Minnesota degree.

- Reflect on yourself and your relationships to family; to the University community, and to the wider and diverse communities of state, nation, and globe.
- Articulate your goals and your unique needs for your educational experience.
- Consider how your social, academic, and career goals will affect your life and guide your pursuit of education.
- *Remain open to the unbidden and unplanned.*

Thoughtfully, develop and execute this plan in conversation with the University community.

- Establish and maintain substantive relationships with faculty and staff, particularly in their advising role, to discuss your intellectual interests and their disciplinary options, your personal dreams and goals and their educative value, as well as your career and professional expectations.
- Establish and maintain substantive relationships with faculty and staff and fellow students to cultivate the personal, interpersonal, and social attitudes consistent with a plural, democratic society.
- Avail yourself of the host of University information resources—technological and human—to fully explore your sense of self, to efficiently organize your learning experiences and document your progress, and to participate responsibly in University life.

Take primary and increasingly active responsibility for your education at all phases of its development and pursuit.

- Initiate advising conversations and respond sympathetically and constructively to advisers' attempts to initiate conversations.
- Be punctual and prepared for advising contacts, with a clear sense of what you want to accomplish.
- Enjoy/Accept the consequences of your actions (and inactions), your decisions (and indecisions), informed and uninformed.

Adviser Role and Responsibilities

In interacting with students, advisers will consistently give priority to the developmental conversation over prescriptive tasking.

- Advise regarding course selection, liberal education and degree requirements, choice of major, learning abroad opportunities etc. with *conscious* reference to the student's articulated goals and aspirations.
- Advise regarding special learning opportunities, career choice, co-curricular and extra-curricular activities, etc. with *conscious* reference to the student's articulated goals and aspirations.
- Prompt, listen, and support students in their articulation of goals and aspirations, but challenge them, sympathetically and sometimes critically, to make the *best* choices in line with their goals and aspirations and with their demonstrated academic performance.
- Advise fully to your level of expertise and refer responsibly.
- Remind, encourage, and instruct students to cultivate select relationships to develop their full academic/disciplinary, research, personal and social potential.
- Expect students to master the informational resources available.
- Model for students an active intellect, a self-reflective sensibility, and an engaged sense of University, and a wider civic, citizenship.
- Network actively to keep yourself aware of curricular and co-curricular opportunities for your students; refer freely and respond to referrals freely.

University Administration Roles and Responsibilities

- Commit resources to insure that students receive sufficiently personalized advising attention to develop a conscious and articulate understanding of their place in, and their passage through, the University.
- Design technological tools to be consistent with, and facilitate, academic and research advising as a developmental conversation.
- Provide incentives in faculty & staff salary structure to reward excellent advising.
- Coordinate and support the colleges' adaptation of their respective advising and mentoring systems and practice toward this common Learning Outcome.

¹ "The Post-Modern University," Mark Yudof, from Remarks at the University of Texas at Austin's Graduate School Convocation, 10 December 1994.

¹ *Making the Most of College: Students Speak Their Minds*, Richard Light (Cambridge, Mass.: Harvard University Press, 2001), 85, 88 .

¹ "A Liberal Education Agenda for the 1990s and Beyond," Twin Cities Campus Task Force on Liberal Education, 2 Feb. 1991, 19, 5.

Appendix 8: Key Experiences that Promote Student Success

	Context	Conclusions
{Kuh, 2005 #1}	Study of Ten Universities with High Measures of Student Engagement on a national survey ⁵	<p>Properties & conditions common to educationally effective colleges & universities:</p> <ol style="list-style-type: none"> 1. Focus on student learning 2. Provide environments adapted for educational enrichment 3. Map clear pathways to student success 4. Are improvement oriented 5. Develop shared responsibility for educational quality and student success <p>Educationally effective colleges & universities:</p> <ol style="list-style-type: none"> 1. Challenge students academically (high expectations of student performance; extensive writing, reading, and class preparation; rigorous culminating senior experience; celebrations of scholarship) 2. Provide rich opportunities for active and collaborative learning (learning from peers, learning in communities, service learning opportunities, responding to diverse learning styles) 3. Develop rich student-faculty interactions (accessible and responsive faculty; academic advising; undergraduate research; electronic technologies) 4. Provide enriching educational experiences (infusion of diversity experiences; study abroad; civic engagement; experiential learning; co-curricular leadership) 5. Have a supportive campus environment (transition programs; advising networks; peer support; multiple safety nets; residential environments)

⁵ The institutions include: Alverno College; Cal State, Monterey Bay; Evergreen State College; Fayetteville State University; George Mason University; Gonzaga University; Longwood University; Macalester College; Miami University; Sewanee University of the South; Sweet Briar College; University of Kansas; University of Maine at Farmington; University of Michigan; University of Texas at El Paso; Ursinus College; Wabash College; Wheaton College (MA); Winston-Salem State University; Wofford College

{Light, 2001 #3}	Ten-year longitudinal study of Harvard Students	<ol style="list-style-type: none"> 1. Successful students develop rich connections on and off campus. 2. The most effective learning occurs in situations with close faculty-student interactions and opportunities to work on relevant problems (such as an undergraduate research experience). 3. Successful students have experienced good mentoring and advising. 4. Successful students learn from the increased diversity of human backgrounds, perspectives, and experiences in college. <p>Recommendations for College Leaders:</p> <ol style="list-style-type: none"> 1. Develop a policy of inclusion. 2. Build/strengthen campus culture. 3. Ensure success in first few “critical weeks” at college. 4. Promote informal interactions of faculty with students. 5. Develop an integrated view of education that includes experiences inside and outside the classroom.
{Pascarella, 2005 #4}	Extensive research analysis of the impact of college on students; study was begun in 1980s; updated in 2005	<p>Key College Environmental Factors that Promote Student Learning & Developmental Gains</p> <ol style="list-style-type: none"> 1. Frequent faculty-student interactions facilitate knowledge gains. 2. Emphasis on general education promotes cognitive skill development (critical thinking, etc.) 3. Culture of student engagement (peers, campus activities) and support services maximize persistence and educational attainment. 4. Student involvement with faculty in an academic community maximizes psychosocial adjustment and maturity. 5. Student perceptions that faculty care about their students and teaching promote persistence and degree completion.

Chickering & Gamson	Report: Seven Principles for Good Practice in Undergraduate Education	<ol style="list-style-type: none"> 1. encourages contact between students and faculty 2. develops reciprocity and cooperation among students 3. encourages active learning 4. gives prompt feedback 5. emphasizes time on task 6. communicates high expectations 7. respects diverse talents and ways of learning
{Woodard, 2001 #28}	Analysis of factors affecting retention	<p>Academic Good Practices:</p> <ol style="list-style-type: none"> 1. Opportunities to practice learned skills 2. Assessment and prompt feedback 3. Synthesizing experiences 4. Integrating education and experience <p>Student Services Good Practices</p> <ol style="list-style-type: none"> 5. Engages student in active learning 6. Collaborates with other departments to promote learning 7. Bases policies and practices on promising directions for research 8. Promotes efficient use of resources to achieve institutional mission 9. helps students build coherent values and ethical lifestyles 10. Sets high expectations for students 11. Builds supportive and inclusive communities 12. Complements institution's mission
Your First College Year Survey ⁶	Higher Education Research Institute at UCLA: Survey of thousands of freshmen	<p>Problems:</p> <p>Students remain disengaged with course work (come late or skip class; don't turn in best work)</p> <p>Students feel intimidated by their professors (few meet with professors in class or office hours) and don't understand faculty expectations.</p>

⁶ http://www.gseis.ucla.edu/heri/yfcy/yfcy_findings.html

DEEP: Final Report for the University of Michigan ⁷	Report of the NSSE Institute for Effective Educational Practice	<p>The University of Michigan:</p> <p>13. “is committed to excellence in all of its endeavors, including undergraduate education.”</p> <p>14. has strengths (size, complexity, decentralization) that can “work against a high quality undergraduate education”</p> <p>15. “has invested substantial resources to create innovative, responsive, and effective undergraduate support systems.”</p> <p>16. has a “deep and wide” commitment to diversity.</p> <p>17. “provides first-year students with considerable amount of initial support” in a plan that is called “The Michigan Way”</p> <p>18. is a “data rich environment” in which “experimentation and innovation are data-driven.”</p> <p>19. has a blueprint for improvements in undergraduate education:</p> <ul style="list-style-type: none"> – Make the campus more interconnected, integrated, and permeable. – Connect students to the community and the world. – Treat the undergraduate career as a life-course journey, both intellectually and socially. – Equip undergraduates with good maps and guides for their journey. – Create a student community that is diverse, inclusive, adventurous, and self-reflective. – Provide resources and nurture practices that renew the faculty commitment to undergraduate education and enhance faculty-student interaction.
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⁷ <http://www.lsa.umich.edu/UofM/Content/lsa/document/DEEP-Final-Report-UM.pdf>

Improving Undergraduate Education: Reports from other Research Universities

Institution	Title	URL
University of Georgia	“Improving the undergraduate experience” (2000)	http://www.nmi.uga.edu/projects/selfstudy/
University of Michigan	– “Report of the President’s Commission on the Undergraduate Experience” (2001)	http://www.umich.edu/pres/undergrad/index.html
	– DEEP report (2003)	http://www.lsa.umich.edu/UofM/Content/lsa/document/DEEP-Final-Report-UM.pdf
Rutgers University	“Transforming Undergraduate Education” (2005)	http://ur.rutgers.edu/transform_ru/report.shtml
UCLA		
UC, Irvine	“Report of the Task Force on Undergraduate Education” (2004)	http://www.evc.uci.edu/undergrad/tfuged_2003-04.pdf
University of Arizona	“Academic Advising Task Force” (2001)	http://web.arizona.edu/~uge/aatf/ http://web.arizona.edu/~uge/aatf/report/FRto c.htm

Improving Undergraduate Education at the University of Minnesota

Units	Title	URL
	“Commission on Excellence”	http://www1.umn.edu/urelate/govrel/CofEtechnical.pdf
SCEP	Report on Credits & Degrees	http://www1.umn.edu/usenate/scep/degcredrep.html
	“Improving our graduation rates”	http://academic.umn.edu/img/assets/16421/gradrate_main.pdf (see also http://academic.umn.edu/provost/undergrad/improvingrates.html for appendices)
	“Civic Engagement Task Force”	http://www1.umn.edu/civic/img/assets/4760/tufts.pdf

January 13, 2006

Task Force Report on Undergraduate Research

Membership:

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Charge: In a memorandum to the Task Force members from Vice Provosts Craig Swan and Victor Bloomfield on October 15, 2004

“As we seek to articulate the unique advantages to undergraduates of attending a research university, we often cite the importance of undergraduate students being involved in research with faculty. For twenty years, the University of Minnesota has offered programs that encourage and support undergraduate involvement in research. As the research mission for undergraduates becomes ever more important, it is appropriate to step back and look thoughtfully at our policies and practices regarding UROP and other undergraduate research programs, to determine whether we are serving students’ educational needs in the best way, and to assure that we have the optimal investment strategy for undergraduate research opportunities.

We already have a start on an inventory of undergraduate research opportunities, and part of your task will be to assure that that inventory is as complete as possible. That inventory will address questions such as

- What is the range of research experiences currently available to undergraduates?
- How many students participate in each type of activity?

The University’s largest and most visible undergraduate research program is UROP, the Undergraduate Research Opportunities Program. It is appropriate that some of the task force’s report be devoted to a review of this program, to include the following questions:

- What do we know about the effectiveness of the current UROP program? What works well? What does not?
- What is an appropriate level of stipends for UROP grants? Should UROP grants carry credits in addition to a stipend? If so, what policy parameters would govern the awarding of credits?
- It appears that most UROP grants go to juniors and seniors. Is this true? Is it appropriate? Is UROP an appropriate vehicle for expanding research opportunities for freshmen and sophomores?
- What are appropriate venues for students to present their work? How effective are current opportunities along this line? What changes, if any should be made?
- What are the advantages and disadvantages of the current UROP approach as contrasted with the CLA Undergraduate Research Partnership Program or the Morris Academic Partnership? Should there be a mix of approaches? What should be the relative sizes?

Finally, and most importantly, we are asking the task force to address larger questions of policy and resources, including the following:

- What is an appropriate profile of undergraduate research activities for the University of Minnesota? Are there useful things we could learn from the practices of peer institutions, such as other CIC universities?
- How do disciplinary differences across colleges and programs affect the opportunities available in each college for undergraduate research? Are there areas where more opportunities are needed? If so, how might interest in undergraduate research be stimulated in those units?
- What are the functions and outcomes of the various summer research programs that bring together U of M students and students from other colleges/universities? How does the focus of these programs differ from other programs?
- What sorts of research experiences are most appropriate for freshmen and sophomores?
- Is there some common denominator that we can identify that will be expected to be included in all undergraduate research experiences from UROP to credit opportunities to the summer programs to work experiences?
- Should we use undergraduate research grants to help achieve the institutional priority of recruiting more “honors-level” students to the University? Should such students be offered a UROP or other grant at the time of admission to the University? (Some colleges are taking steps in this direction, and we also have a new “UROP Scholars Award.”)
- How can we better coordinate the various undergraduate research efforts at the University to assure that students are able to easily identify and compare the opportunities that are available to them?
- How can undergraduate research policies and programs support institutional priorities other than student financial support, e.g., increasing the number of U undergrads winning prestigious national graduate

- fellowships, and increasing the number of U students going to graduate school?
- Is there is an effective means to use the U dollars to stimulate our faculty to make more requests for undergraduate support from their federal research sponsors?"

Introduction:

Many undergraduates at the University of Minnesota participate in research or scholarly/creative activities under the supervision of a faculty member. The centerpiece and most visible area of undergraduate research falls under the auspices of the Undergraduate Research Opportunities Program (UROP), which began in 1985. Although UROP is the most publicized and visible program of undergraduate research at the university, far more students are engaged in research or other scholarly activities outside the UROP program than within it. These activities occur in several different ways, most commonly through working as a paid researcher under the supervision of a faculty member or graduate student or by taking a for-credit course of directed research or scholarly activity. Some programs require their graduates to undertake a research project as part of the degree requirement.

In approaching our task, we first identified the various types of undergraduate research activity available across the university and established the numbers of students engaged in each of them. We then reviewed the characteristics of the students engaged in research and the outcomes of this activity, paying particular attention to the UROP program. In doing this we provided direct answers to a number of the questions posed to us in the charge to the task force and substance for the discussion of the other issues we were asked to address. The discussions in turn led to our recommendations, which are presented before the main body of the report.

The wide variety of ways in which research or scholarly activity is undertaken, the lack of a widely understood definition of what constitutes research and the lack of a formal mechanism for tracking this activity at any level across the university mean that this report establishes an incomplete picture of undergraduate research. Some relevant activities have certainly been missed, but it is equally likely that some "research" courses or paid research assistantships that we have counted as "research" in compiling data for this report would not, on closer scrutiny, meet our definition.

Recommendations

Create an Undergraduate Research Center on the Twin Cities campus that would be a central source of information on undergraduate research activities and opportunities.

The Undergraduate Research Opportunities (UROP) program should be the nucleus around which the center is built. It has the most complete records of undergraduate research activities at the university, although they are far from complete. Some records are kept locally in colleges and departments, and many of the research experiences counted in this report are not included in any current database. A key part of the center would be a much enlarged web presence, including lists of the various programs and

links to the web pages of colleges, departments and centers where the various opportunities exist. The central web site could also list the research accomplishments of undergraduates – awards, published papers, presentations at local and national meetings, and so on. A well-constructed and maintained web site would be most effective in promoting research opportunities for all students and in all disciplines. In its role within the University, a good model for the center might be the Learning Abroad Center, which serves as the Twin Cities campus office for study abroad and also provides support for and works closely with smaller centers on the coordinate campuses. Ideally the Undergraduate Research Center would be in a location where undergraduates congregate.

Establish a goal of increasing the undergraduate participation rate in research or creative activity, broadly defined, to 50% (up from the current roughly 25-30% on the Twin Cities campus) of the graduating class.

Students who participate in undergraduate research report great satisfaction with the experience. Moreover, the graduation rates of students who engage in research are better than those who do not, for students of similar overall level of academic performance. These are compelling reasons for encouraging increased participation in research. Some colleges and campuses already meet or exceed a 50% target.

Establish and maintain a central record of presentations and publications resulting from undergraduate research.

This would help document the breadth and scale of undergraduate research across the university, and demonstrate to students and the community the central role that research plays in the education of undergraduates and the benefits that undergraduates gain from attending a large research university.

Provide information to freshmen about the full range of research opportunities at the University.

Most undergraduates will not engage in research in their freshman or sophomore years. However, all undergraduates should be made aware of what opportunities exist and what potential benefit they would gain from an undergraduate research experience. The earlier this happens the more likely it is that a student will opt to engage in research and the more realistic the time frame for making and implementing plans to do so. The Undergraduate Research Center would be the storehouse of information about research opportunities and could organize seminars or workshops as means of getting information to freshmen.

Provide support for the expansion of the Life Sciences Undergraduate Research Symposium in the Twin Cities to become a campus-wide event, embracing all disciplines.

Initial steps were made in 2005 to making the Life Sciences Undergraduate Research Symposium a campus-wide undergraduate event in the Twin Cities by opening it up to all sciences. Completing this transformation and actively encouraging student participation

from all disciplines will result in greater exposure to and awareness of the undergraduate research enterprise. Successful campus-wide symposia already exist on the Duluth and Morris campuses

Encourage all undergraduates who carry out research to present their results at a public event on campus, preferably at a campus-wide event.

Presenting results publicly is an excellent way of bringing a project to conclusion, requiring that students compile and analyze their data or prepare their artistic creation for public presentation. They need to think about their audience and prepare their words and text for oral or poster presentation accordingly. Completing a project by both writing a report and making a public presentation provide excellent opportunities for honing communication skills. Incentives, such as having awards in various categories, might be provided to encourage students to present their results at a campus-wide Undergraduate Research Symposium.

Provide incentives to faculty to create more opportunities for undergraduate research in their labs, to advise students and to oversee their scholarly or creative activities.

This will be important if participation in undergraduate research increases. Federal agencies, especially NSF and NIH, provide incentives in the sciences for faculty to draw undergraduates into research projects, through grants for summer programs and grant supplements. The university should publicly recognize and perhaps reward the contributions of faculty who advise undergraduates in research.

And for the UROP Program In Particular

Expand the program.

UROP is the centerpiece of undergraduate research on campus, and all the evidence suggests that it is highly successful. Reports from student and faculty participants in the program are overwhelmingly positive. UROP students graduate at a very high rate. The program represents excellent preparation for graduate school and professional schools. A doubling of participation in UROP would keep UROP participation in proportion to the other areas of undergraduate research, with the goal of increasing participation in a research experience to 50% of graduates.

Broaden the range of research projects and scholarly activities supported by UROP.

There is wide disparity in the level of undergraduate engagement in research in different disciplines. It is especially high in the basic and applied sciences, and low in the arts, humanities and business. A broadening of the range of disciplines supported by UROP could be achieved by focusing some support on collaborative projects that cross disciplines and cross colleges, with an emphasis on drawing in disciplines that have been underrepresented. Examples of successful collaboration could then be used to attract more proposals.

Put teeth into the requirement that recipients of UROP awards submit a report at the conclusion of the project.

Currently only about a third of UROP awardees submit written reports to the UROP office. This is an unsatisfactory state of affairs. Writing the report subjects students to the discipline of organizing their thoughts and their results into a coherent form suitable for sharing with others. If they do not do this they miss out on a key part of the research enterprise. To encourage the submission of a report, the final payment of the stipend could be withheld until the report is submitted. In addition, recipients of UROP awards could be offered a supplement to the stipend if they present their results at a university-wide research symposium. A supplement of \$200 would represent about 20 extra hours of work in preparing for the presentation.

Expand the UROP Scholarship program to the Morris and Crookston campuses and increase the number of awards on the Twin Cities campus.

The UROP Scholarship program, with the similar High Ability Scholars Program (HASP) in the College of Natural Resources, is in its second year of operation and its overall effectiveness is still to be judged. It does appear to be successful in helping recruit highly qualified students to the University and that, together with the benefits inherent to the UROP program, are good reasons for developing the program further. An attractive element of the program is that it brings students from widely varying disciplines together to talk about what research and scholarly endeavors mean in different fields.

Make the program more visible by using the web more aggressively for promotion and for providing information about previous scholarship holders and their research projects.

The range of activities supported by UROP is truly astounding and case histories of previous UROP projects and information about the researchers themselves – including how they picked a project and what they personally gained by carrying it out – could be most effective in promoting the program.

Emphasize the importance of active oversight by faculty advisors

The active role of the faculty member is key to making a UROP experience successful and rewarding. Part of the faculty member's responsibility is to provide oversight to make sure the student is aware of other relevant work and does not reinvent the wheel. It is especially important for a faculty adviser to screen abstracts of papers submitted for public presentation, especially at disciplinary meetings, where the audience is highly knowledgeable. Students should be helped in preparing for any form of public presentation.

Inventory of, and Nature and Level of Participation in Undergraduate Research/Scholarly Activities at the University of Minnesota

Two basic questions posed in the charge to the task force are:

- What is the range of research experiences currently available to undergraduates?
- How many students participate in each type of activity?

In attempting to answer these questions, the task force had first to address the more fundamental question of what constitutes a “research experience?” It adopted the following definition.

Research/Scholarly/Creative work: *“Focused, systematic study and investigation undertaken to increase knowledge and understanding of a subject. The term is used inclusively to refer to scholarly, empirical, creative, critical, and /or expressive activities in the sciences, humanities, arts, and other scholarly fields, pure and applied, which expand, clarify, reorganize, or develop knowledge or artistic perception.”* (Definition: modified from Southern Illinois University’s Office of Research and Development Administration Glossary of Research terms.)

With this definition as guide, the following types of activities/experiences were identified:

- 1) Registration in a “research” course;
- 2) Employment as a student researcher;
- 3) UROP participation;
- 4) Summer research program participation, both externally and internally funded;
- 5) Special programs, such as the Beckman Scholars Program, the HASP program in CNR, the Morris Academic Partnership (MAP) program, the CEHSP (College of Education and Human Service Professions) research program at Duluth, etc.

Details of what is included in each category are given in Appendix I. The extent of undergraduate participation in these activities/experiences can be found by extracting information from the data warehouse (#1 and 2), the UROP files (#3) and college, department and funding agency sources (#4 and 5). A comprehensive picture of the participation of undergraduates in these activities, by campus, by college and by type of major, was formed by looking at participation in several different ways:

- A) Compiling data on all activities undertaken during 2004-05 (summer 2004 through the spring of 2005). We have this for all four campuses (but with incomplete data for Morris). This provides a “snapshot” in time.
- B) Compiling data on all activities undertaken by the cohort of students who started at the university on the Twin Cities campus as freshmen in the fall of 1999.
- C) Compiling data on all activities undertaken by the cohort of students who graduated from the Twin Cities campus during 2003-04 (summer 2003 through summer 2004).
- D) Additional details about undergraduate engagement in research/scholarly activities during 2004-05 were obtained by surveying departments, centers and units. To provide guidance on what activities should be reported, the definition of “research experience” given above was included with the survey.
- E) A number of student experience surveys administered nationally or by the university contain questions about activities, including research, engaged in as part of the undergraduate experience. Data from these provide a measure of research participation as reported by students.

Special attention was given to UROP and, in addition to reviewing UROP participation as part of A-C above, a tracking of trends over an eleven-year period was made, and a survey of graduates with UROP experience was undertaken.

Review of the information compiled in these ways allows questions given in the charge to the task force to be addressed.

Research Activities Undertaken during 2004-05

During the period Summer Session 2004 through Spring Semester 2005, using the criteria established above, around 6,000 students engaged in 7,700 “countable” research experiences on the four campuses.

Summary tables and charts showing the numbers of registrations in “research” courses during the period Summer Session 2004 through Spring Semester 2005 are presented in Figs. 1 and 2. They show that between 3-4% of undergraduates on the Twin Cities campus, 2-4% on the Duluth campus, 4-10% on the Crookston campus and 15-22% on the Morris campus registered for a “research” course over this time period. More students take research courses in the spring than in the fall, probably reflecting a tendency to take on research/independent projects in the term before graduation. This is consistent with the chart showing registrations in research courses by level (Fig. 2) that indicate that 70-80% of the students on the Twin Cities and Duluth campuses registered for research courses are seniors. The relatively high proportion of Crookston students

taking “research” courses may reflect courses labeled as “directed studies” or “individual studies” being used for purposes that are less research related than similarly labeled courses on other campuses. The even higher proportion of Morris students taking “research” courses may reflect a somewhat more liberal view of what constitutes research than on the other campuses, but likely also reflects the stress placed on individual study on that campus. During each semester of the 2004-05 academic year, 7-8% of Morris students registered for courses labeled “Directed Studies” (included in the Ind/Dir Study category in Fig. 1). In the summer 22% of registered students took a directed studies course.

Undergraduates in most colleges hold paid positions as undergraduate research assistants or lab scientists, as shown in Tables 1 and 2. Most of the opportunities are in the basic and applied sciences, and at least 5% of the students in the colleges housing these disciplines on the Twin Cities and Duluth campuses held research positions during 2004-05. Students in the Colleges of Biological Sciences and Natural Resources on the Twin Cities campus were most likely to find research positions; about 15% of the student population in these colleges held such appointments during 2004-05. The benefit that the Medical School and allied health sciences provide to students on the Twin Cities campus is apparent in these tables. During 2004-05, 18% of the research positions held by undergraduates on the Twin Cities campus were in the Medical School. Another good source of research employment for undergraduates is the College of Veterinary Medicine. In general there are more opportunities for paid research in the Twin Cities than on the coordinate campuses, reflecting the larger research enterprise in the Twin Cities.

During the 2004-05 academic year, 554 students submitted UROP proposals on the four campuses and 495 of these were funded. Details are shown in Fig. 3. Overall between 0.8% and 1.6% of the undergraduates carried out a UROP project in 2004-05. Participation rate in UROP was highest on the Morris and Duluth campuses and lowest on the Crookston campus. The greatest number of awards overall was in the biological sciences, followed by engineering and the physical sciences. There is also a disproportionately large number of awards in the area of natural resources and environmental sciences on the Twin Cities campus. This is due in part to the availability of Foster Wheeler funds – made available to students in the form of UROP grants in the area of environmental science – as part of the contract agreement with this company from the time the heating plant was renovated in 1993 until 2004. There are disproportionately few awards in business and education.

During the summer of 2004 there were at least 15 programs held at the university specifically devoted to providing research experiences for undergraduates (see the details in Table 3). About half the programs are funded through the Research Experiences for Undergraduates (REU) initiative at NSF, and are thus intended to serve students from diverse backgrounds and especially those from academic institutions where research programs are limited. NSF expects that “a significant fraction of the student participants should come from outside the host institution or organization.” Most of the programs aim to increase participation of underrepresented minorities in the STEM (science, technology, engineering and math) disciplines, and indeed all but two of the programs

listed in Table 3 are focused on STEM. All provide a stipend to participants and most also cover the cost of room and board. All but one are on the Twin Cities campus, with a single program at Duluth (and a program at Morris that did not run in 2004). Participation of UofM students in these programs ranges from 0% - 100%, with the overall rate being 20% of the 266 students in the programs. Collectively, these programs offer a limited number of research opportunities to University of Minnesota students, but those who participate benefit from working with students from diverse backgrounds from across the country. Most of these programs culminate in some kind of closing event, with display of results. For some years, an all-program event has been held, sponsored by the Diversity Office in the Graduate School. In addition, for the past two years, students in the science/engineering programs have been invited to participate in a one-day symposium organized by the educational arm of the Materials Research Science and Engineering center (MRSEC).

The questionnaire distributed to departments, colleges and other units is reproduced in Appendix II, together with a tabulation of the results. Some of the data collected in the survey were also captured in the downloads from the database on research appointments and for-credit experiences, but much of the information on the nature and context of the research and its outcomes were not available from central sources – except and in part for the UROP program. Responses were received from 43 departments and centers. The data, although far from complete, are consistent with those obtained from the data warehouse. Juniors or seniors were responsible for 83% of the research experiences reported in the survey, compared with 88% of research course registrations and 81% of UROP projects.

The survey responses suggest that faculty advise by far the largest fraction of research projects (82% in the survey), while other categories of advisors (post-docs, graduate students or staff) each accounted for between 4% - 7% of the projects. Most of the students carried out work in their ‘home’ department, but about 25% worked outside their own department and a small fraction (3.5% in the survey responses) were students from other universities working here in summer research programs.

The total amount of funding devoted to undergraduate research reported in the survey is \$2.2 million. If we add to this funds expended on UROP, the total comes to about \$3 million, which can be regarded as a minimum, given incomplete reporting. Participants in the summer REU and other research programs receive up to \$5,000 in stipend plus room and board and in some cases travel expenses. A student working 10 hours a week as an undergraduate research worker over the academic year would receive about \$3,000. In terms of source, about 40% of the funding comes from faculty or staff research grants, 10% comes from department O&M funds (and this should not include UROP), 13% comes from gifts of endowed funds, and 25% comes from REU funds.

Most of the reported outcomes are related to senior course or honors requirements, but a significant number of publications (84) and public performances/presentations (369) were also reported. These combine to represent nearly 20% of the reported research experiences, an encouraging statistic.

The HASP program in the College of Natural Resources funded two people in 2004-05 and two more in 2005-06. There were 29 students participating in the Morris Academic Partnership (MAP) Program during 2004-05 and 12 students in the Multi-ethnic student Mentoring Program (MMP) on the Morris campus.

In 2005 (for the 2005-06 academic year) and for three other times since the program's inception in 1997, the University of Minnesota, Twin Cities has been one of about 14 universities across the country each year invited to nominate undergraduates to be Beckman scholars, in a program that provides generous financial support for exceptionally talented students in chemistry, biochemistry, and the biological and medical sciences. Each scholarship (up to \$19,300 total) provides full-time support during two summers and 10-hours a week support during the intervening academic year, and included travel funds. Two University of Minnesota Beckman scholarships have been awarded for 2005-06.

Research by the 1999 Cohort of “Freshmen” on the Twin Cities Campus.

Another perspective on the research experiences of undergraduates may be gained by tracking the academic careers of a cohort of freshmen. The 1999 cohort is the most suitable for this because it was the first cohort to start at the university on semesters and the first for which all records are available on PeopleSoft. It is also the only cohort starting under semesters for which graduation rates can be tracked through the sixth year (at the time this report was written.) The cohort is defined to include all first-time college students on the Twin Cities who matriculated in the fall of 1999. They are commonly referred to as “freshmen,” although many arrived with sufficient college credits completed (through Advanced Placement, International Baccalaureate, PSEO, etc) to be technically sophomores or even juniors and a few seniors.

The records of the 1999 “freshmen” – from the time of matriculation until the time of graduation or last term of registration – were checked against the registration lists of research courses, the list of UROP awardees and the undergraduate research employment lists to determine their extent of research participation. The number of students engaged in each type of research activity is shown in Table. 4. In all, about 23% of the 1999 freshmen participated in some type of research experience. The range is from about 4% participation in UROP to about 16% registration in research courses. It is noteworthy that the academic record of students who participated in any of the three types of research experience on average was significantly better, as measured by GPA, than those who participated in none. This is brought out forcefully by a comparison of the GPA distributions for the four groups of students (Fig. 4).

It is also instructive to compare the graduation rates of students who have had a research experience with those who have not (Fig. 5). The data indicate that students with a research experience graduate at significantly higher rates than those who do not, and this holds true when comparisons are made for students of similar overall academic achievement as measured by GPA (Fig. 6). The best graduation rates are for students

with a UROP experience (which is also the group with the strongest academic record); these students have a 4-year graduation rate of 54% and a six-year rate of 93%. The students with the lowest GPAs appear to gain relatively at least as much from a research experience as those with high GPAs, although graduation rates correlate strongly with GPA.

The data in Fig. 6 show a strong correlation between graduation rate and participation in a research experience for students of similar academic ability as measured by GPA. One can also do a comparison according to academic strength on entry to the university. A convenient measure of this is the “AAR” score ($\text{AAR} = \text{High School Rank} + 2 \times \text{ACT Composite score}$). The difference in graduation rates between students with or without research experience but with similar AAR is striking (Fig. 7). The 4-year graduation rates at all AAR levels are at least 10 points higher for students with research experience and the six-year graduation rates are 18 (for the highest AAR) to 30 (for the lowest AAR) percentage points higher for students with a research experience. Also, students with a research experience tend to do better academically at the university (as measured by GPA) than students of similar entering academic strength (as measured by AAR) who do not opt for a research experience. Whether it is the case that students with greater motivation, regardless of academic ability, opt to take on a research project or whether having taken on a research project they gain the motivation to do well and to finish is unclear, but the correlation between participation in research and graduating in a timely way is striking. It should be pointed out that these data are for only one cohort; it will be interesting to see if these strong correlations hold, as expected, for later cohorts.

Research by the 2003-04 Cohort of Graduates on the Twin Cities Campus

Yet another perspective is gained by considering the research experiences of a group of students who graduate in a given year. 2003-04 is the most recent year for which full data is available. Students in this cohort started at different times in the university and some transferred to the university from other institutions. As for the 1999 group of freshmen, the list of 2003-04 graduates was checked against the registration lists of research courses, the list of UROP awardees and the undergraduate research employment lists to determine the extent of research participation. The overall number of graduates who participated in any one of the three types of experience is close to 30%, as shown in Table 4. Among the three types of research experience, participation rate ranged from 3.5% for UROP to 22% for a research course. Participation rate varies greatly among the colleges, however, as shown in Fig. 8, from 0% in Dentistry to over 70% in Biological Sciences (the latter is somewhat exaggerated by counting the Honors Colloquium as a research course, but in all types of experience CBS students participate at a high level). As in the other perspectives, the colleges in which the basic and applied sciences are concentrated show the highest levels of participation.

Of the graduates who have completed a research experience, 37% took on more than one, and 12% took on more than two (Fig. 9). The repeats are much lower for those doing UROP, which gives preference to students who have not had a prior UROP award, with only 9% doing more than one.

The UROP program

The concept and acronym for UROP originated at MIT in 1969, and the program was initiated at the University of Minnesota in 1985. Many other universities around the country now have similar programs. At Minnesota, it is available on all four campuses. Over the past 4 years, 965 individual faculty members have served as UROP advisers and 2000 students have held UROP awards.

UROP has an administrator/coordinator and, until FY 2004, also an administrative assistant. It is housed in the Graduate School. Colleges are assigned a budget each year by the program administrator. The budget is based upon the number of eligible students in each college and past use of the program

Table 5 shows the UROP funding history for the past 11 years. Core funding is provided from State appropriations through General Operations and Maintenance funds. Base funding in FY 2005 was \$470,000 for general allocations and \$100,000 for targeted projects such as those with faculty sponsors in the Academic Health Center. In recent years the base amount has been supplemented by \$100,000 from the Provost and additional funds from Foster-Wheeler and several other ad hoc sources, including colleges and departments. The total amount available in FY 2005 was nearly \$770,000.

In 2004-05 the maximum amount a student could request in their UROP proposal was \$1,400 in stipend and \$300 in equipment or other expenses. All but a few students request the full stipend and most request \$300 in expenses. The numbers of proposals received and numbers funded, by college and by campus over an eleven-year period are shown in Table 6 and Figs. 10 and 11. In general, applications for UROP grants have increased with time and on all campuses, although this increase in part is accounted for by enrollment increases. Funding has not kept up with the increase in applications, with the funding rate declining from about 90% in 2001 to just over 80% in 2003-04, but with a recovery to about 90% in 2004-05 thanks to the availability of supplementary funds. It will be noted from Table 5 that the amount awarded each year for the past 7 years has exceeded the total of the funds available! This reflects the fact that not all the approved projects are initiated or carried through to completion (or are completed on a shorter time frame) and that roughly \$50,000 to \$100,000 of unspent funds each year are returned to the program. These funds are used to support UROP projects in the following year and to help support student and faculty participation in the National Conference on Undergraduate Research (NCUR).

The participation rate in UROP has been highest at UMD and UMM and lowest at Crookston, although there has been a convergence to a similar rate on all campuses in the last few years.

How effective is the current UROP program? What works well and what does not?

There are several measures, qualitative and quantitative, by which the effectiveness of UROP can be assessed. They include:

- Student satisfaction with the experience
- Faculty advisor/mentor satisfaction with the experience
- Completion rate (one measure of which is turning in the final report)
- Effect on retention and graduation
- Presentation of results in some format on campus
- Presentation of a paper at NCUR or a professional meeting or conference
- Publication

Surveys conducted on completion of UROP projects indicate overwhelming satisfaction among students and faculty advisors. Over a four-year period more than 90% of both groups rated their experience with the program as very good to excellent. Only a handful in either group rated the experience as poor. One of the objectives of the program is to provide an opportunity for students to work closely with faculty members, and student surveys indicate that indeed this is the case in practice. Faculty members indicate that UROP students often become valuable members of research teams, and some students follow up their UROP experience by being employed on a faculty member's research funds.

Of the 41 alumni who participated in UROP in 1998-99 and who responded to a survey, 11 reported presenting the results of their UROP project orally at a meeting and 12 reported that their work resulted in professional publication. All 41 of the respondents went on to either graduate school or professional school (of which 10 were medical school) after completing their baccalaureate degree. Two received awards within the University for their UROP work and two received awards outside the university. Comments from the UROP 'alumni' respondents were uniformly laudatory; here are two that give the flavor of the response:

"Although I didn't have any major outcome to my UROP project, my experience with the UROP program and the professors I worked with are two of the major reasons why I continued on in graduate school. I think that UROP is a significant program that should be expanded to further foster and improve undergraduate research experiences. Students who plan to go on to graduate school will definitely have a step up if they participate in this program."

"I would argue that UROP and undergraduate research in general was the single most valuable undergraduate experience in college. Better than any class I took, and possibly better than all of the classes I took. Quite simply, college would not have been the same without UROP and undergraduate research, and I certainly would not have attained graduate school or been as successful without the research experience."

Students are required to turn in a final report as a condition of receiving a UROP award, but only 35% did so in the period 2000-04. This is a facet of the program that clearly needs improvement. The problem is that there is no mechanism to ensure a report is submitted or penalty for failure to submit one. Thus many students are not taking the final step of writing up their findings or, if they are, they are not providing a copy of the report to the UROP office. Only 2-3 % of projects are reported to the UROP office as being abandoned, but we do not know how many are not completed. There needs to be a way to ensure that some form of written report is presented at the completion of the UROP award period.

Applicants for UROP awards tend to be those with stronger academic records (average GPA in 2004-05 at time of submission was 3.37, compared with average GPA of all undergraduates of 3.01, and with average GPA of juniors and seniors of 3.15). Thus it is not surprising that the retention and graduation rates of UROP students are above those for all students. However, when graduate rates of UROP students among the 1999 class of freshmen on the Twin Cities campus are compared with those of cohorts with a similar GPA profile but without UROP experience, the 4-, 5- and 6-year graduation rates of those with UROP experience is significantly higher than those without. This of course does not imply cause and effect, but it does suggest that UROP students are relatively more motivated and committed to completing their degree than other students of similar academic ability.

There is no requirement that UROP students present their results publicly, but many do so. Some do this within their departments, others at the Life Sciences Undergraduate Research Symposium run by the College of Biological Sciences in the Twin Cities each year. UROP recipients are encouraged to present their work at the National Council on Undergraduate Research (NCUR) meeting, and roughly 45 students from the university each year present their results there. The University of Minnesota has been especially well represented at NCUR over the past 19 years; on occasion there have been more presentations by UofM students than by students from any other university. The active encouragement of faculty and staff and UofM representation on the NCUR Board have helped create and maintain this level of involvement.

There are few data to judge how many UROP projects result in research publications or presentations at national or regional disciplinary meetings, but it is clear from what many faculty report informally and anecdotally, this is a fairly common outcome. It would be helpful to have some centrally kept record of these publications as an indicator of the overall impact of UROP on university research, and as a way to demonstrate to potential students the benefits of undergraduate study at the university.

What is an appropriate level of stipends for UROP grants?

There is no indication of dissatisfaction with the current UROP stipend, which in 2005-06 provided for a maximum of \$1,400. The level of stipend does not appear to be a factor in a student's decision to apply for a UROP award. The stipend is payable on condition that the student not receive academic credit for the work. The level of effort (about 10 hours

per week for 12 weeks) seems appropriate for this type of co-curricular activity and the hourly rate is in line with other sources of student employment on campus (including work study). Such parity should be maintained.

Should UROP grants carry credit in addition to a stipend?

No. The current arrangement puts an undergraduate researcher in a similar position to that of a graduate research assistant or faculty member receiving salary for work carried out on a research project. This makes the UROP experience distinctive for undergraduates and gives it a professional flavor. It separates the desire of a student to become engaged in research from the need to accrue credits for the degree, and makes it truly an enrichment experience, over and above the basic requirements for graduation. It is desirable to maintain these elements of the program. Some faculty members allow a student to take academic credit for work over and above what is expected for a UROP project, but this is something that warrants case-by-case assessment; it should not be done on an automatic or regular basis. In some programs requiring a capstone project, a UROP project and report may be accepted in lieu of a capstone report, which otherwise would be completed under a capstone course.

Do most UROP awards go to juniors and seniors? Is this appropriate? Should UROP expand opportunities for freshmen and sophomores?

For the past ten years, about 80% of UROP awards on the four campuses have gone to juniors and seniors. Only 3-4% have gone to freshmen. Taken for all campuses and colleges, this percentage has not changed much in the past ten years, but in two colleges in the Twin Cities, IT and CLA, there has been a sharp increase in submissions from freshmen over the past two years, with on average 11% of the applications in these two colleges coming from freshmen in 2003-04 and 2004-05. This may reflect increased encouragement by faculty and staff for students to consider applying for UROPs, with the message being given during freshman registration or at convocation, or an increased expectation among freshmen that research is something that should be done as part of the undergraduate experience and that starting early is a good thing.

There is mixed sentiment among members of the task force and other faculty members about the wisdom of encouraging lower division students, especially freshmen, to submit UROP proposals. Few freshmen have the maturity or background knowledge to be able to write a substantive research proposal or become an effective member of a faculty member's research team. For this reason, some faculty members refuse to serve as research advisors for freshmen. On the other hand, some freshmen write excellent UROP proposals and engage in research that both student and faculty mentor report as being highly rewarding. The IT Honors Freshman Research Program provides evidence that research in the freshmen year works well for the right kind of student – academically especially well prepared and highly motivated. Given the demand at the junior and senior levels, the task force does not recommend expanding opportunities for freshmen and sophomores unless additional resources are provided. Under the present UROP guidelines, proposals from freshmen and sophomores are considered on their own merits

and must compete on an equal footing with those from juniors and seniors. Such parity should be maintained.

Starting in fall 2004 and as an aid in recruitment of top students, “UROP Scholarship” awards have been made to about a dozen admitted freshmen. Applicants who wish to be considered for the awards are asked to write a short essay on what type of project they are interested in researching. The scholarship is for \$1,200 in the freshman year, with the expectation that the scholars participate in a series of seminars to learn about research opportunities and the culture of research and scholarly activity at the university from faculty and students who have participated in the UROP program. They receive a continued scholarship for \$1,400 in the second year and are expected to write a research proposal and conduct the research in that year. In each year the scholarship comes in two installments, and the final installment of \$700 is made upon completion of the project. The scholars also meet on several occasions with the freshman scholars to allow the freshman to learn from their experience and give them an opportunity to talk about their research projects with an audience of peers.

That UROP Scholars program is mimicked in CNR with the High Ability Scholars Program (HASP) in which two talented freshmen are selected. Those two people participate fully with the centrally funded UROP scholars. Funding for HASP comes 1/3 from the department and 2/3 from the college.

What are the appropriate venues for student to present their work?

NCUR provides a wonderful venue for presentation of the results of a UROP project. This allows students to present their work to an eclectic audience representing all fields of academic endeavor and from all parts of the country. Students report great satisfaction with participation in the NCUR conferences. The quality of work may merit presentation of results at regional or national disciplinary conferences, and if this is the case it provides students with outstanding opportunities to talk to others in the field and get feedback on their own work from a professional audience. It allows them to hear talks and presentations by experts in the discipline and it may help them make decisions about whether or not to go on to graduate school or professional school after graduation. The downside of presentation at regional or national meetings in the discipline is that research results are of widely varying quality and there is often “reinventing the wheel,” which the student may be unaware of. It is important that the faculty adviser provide appropriate screening of abstracts submitted to all meetings.

The UROP Office provides one-time grants of \$250 to students to present their results at national meetings. Approximately 8-10 of these is funded each year. Colleges and departments are also asked to help support their students attending these conferences.

On both the Duluth and Morris campuses there is an undergraduate research symposium each spring that provide excellent forums for presenting results of UROP work either orally or on posters. Relatively few students on the Twin Cities campus present the results of their work on campus, and this is something that could and should be changed.

An excellent opportunity for this in the Twin Cities is provided by the move to expand the Life Sciences Undergraduate Research Symposium, a long-existing event sponsored by the College of Biological Sciences, to embrace the whole campus and all disciplines. One suggestion to encourage participation in this would be to offer a supplement in stipend – say \$200 – to UROP students who prepare and present a poster at this symposium. If part of the UROP program, this incentive would apply to awardees on the campuses to present results at a campus symposium.

What are the advantages and disadvantage of the current UROP program as contrasted with the CLA Undergraduate Research Partnership Program or the Morris Academic Partnership? Should there be a mix of approaches?

The Morris Academic Partnership provides an undergraduate research assistantship to a faculty member, who then chooses the student for his or her project. With UROP it is the other way round, with the initiative resting with the student. The Morris program is particularly appropriate for a campus lacking graduate students. It is less important from the faculty perspective for a campus with graduate programs, although from the student perspective there is significant value in encouraging the development of research partnerships between faculty and undergraduates, and providing this opportunity to new faculty could help them initiate research projects. UROP is appropriate in both types of campus and is not superseded by the Morris Academic Partnership program on that campus.

The CLA Undergraduate Research Partnership program has been discontinued. It was an undergraduate version of a CLA Graduate Research Partnership program, which itself is in effect a graduate version of UROP. Since the undergraduate program largely duplicated UROP at the college level it offered no particular advantages over UROP, except that it did increase the number of awards available to CLA students. Starting in fall 2006, CLA is planning to offer a number of grants to freshmen to support research or creative work under the guidance of CLA faculty. The grants would be for \$1,000, and the research or creative activity would take place in the spring of the freshman year or fall of the sophomore year.

In general, a mix of approaches makes sense. It gives flexibility in the way research opportunities are made available to students, and it may lead to an increase in the number of students participating in undergraduate research or creative work.

Student Reports on Research Activities

There are a number of surveys, either designed and conducted by the university or as part of national projects, that address the issue of student participation in research, among other activities.

For each of the past few years, the Twin Cities campus has conducted a survey of seniors who apply for graduation in the spring. Among the questions, students are asked about activities in which they may have participated while at the university. The list of possible

activities includes “*Working with a faculty member on an artistic/research project.*” The responses to this question for the graduating classes of 2004 and 2005 are shown by college in Table 7. Also included in this table are the corresponding percentages derived from university files and databases (and also shown in Fig. 8). Overall, and for most colleges individually, the level of participation reported by students in the survey is less, often significantly so, than that documented by counts of experiences based on data in university files. The biggest likely reason for this discrepancy is that students may not consider registration in a “research” course to be “*working with a faculty member on a research or artistic project,*” whether or not the student received individual supervision from a faculty member in such a course. In other cases, students may have held research appointments that had little research content or were supervised by graduate students or a staff member. The differences between survey results and counts of “research” experiences based on file data highlight the difficulty of finding a common definition of research and in assessing the level of research participation.

Morris participates in the National Survey of Student Engagement (NSSE) conducted by the Indiana University Center for Postsecondary Research and cosponsored by the Carnegie Foundation for the Advancement of Teaching and the Pew Forum on Undergraduate Learning. One of the questions in that survey, asked of both freshmen and seniors is, “*Which of the following have you done or do you plan to do before you graduate from your institution? (d) work on a research project with a faculty member outside of course or program requirements?*” In the 2004 survey about 33% of UMM seniors indicated that they had done research with a faculty member outside of class, and a further 11% said they planned to do so. In the same survey, about the same percentage of freshmen said they planned to do research with a faculty member.

Broader Questions of Policy and Resources

What is an appropriate profile of undergraduate research activities for the University of Minnesota? Are there useful things we could learn from the practices of peer institutions, such as other CIC universities?

Data show that a significant fraction of undergraduates at the university engage in some kind of research or scholarly activity, broadly defined. These include UROP, registration in a course involving independent research or study, working in a research lab, participating in organized summer experiences on campus with students from other universities, and combining research with study abroad. Examples of the wide of range of projects supported by UROP during 2004-05 are:

“*Effects of Synthetic Pyrethroid Pesticides on the Feeding Behavior of Aphids,*”
Jennifer Kaser (Natural Resource major) with Ian MacRae, Center for Agriculture
and Natural Resources, UMC

“The Effects of Prescribed Fire Burn Intensity on the Growth of Woody Species in Tallgrass Prairie,” Eric Korman (Biology major) with Margaret Kuchenreuther, Division of Science and Math, UMM.

“Piaf to Rap: French Music and Lyrics as Instruments of Cultural Critique,” Anna Harrington (French major) with Sarah Buchanan, Division of Humanities, UMM

“Paleobiologic and Taphonomical Study of Upper Jurassic Dinosaurs From the Morrison Formation, Bighorn Basin, Wyoming,” Sara Kubarek (Geology major) with Timothy Demko, Department of Geology, UMD

“Should Grant Portage Reservation Produce its Own Energy? Analysis of the Benefits and Costs Associated With Wind Electrolysis, Hydrogen, and Fuel Cells,” Erica Bleck and Michael Braun (Environmental Studies majors) with Michael Mageau, Department of Geography, UMD

“Characterization of Flavor and Aroma Compound in Regional Wines,” Nicholas Smith (Food Science major) with Anna Mansfield, Department of Horticulture Science, COAFES

“Legalizing Literature: The Process of Censorship in America,” Ivy Anderson (English major) with Paula Rabinowitz, Department of English, CLA

“Mammalian Survey of the Monte Alto Forest, Costa Rica,” Ryan Solem, Natalie Watson and Katherine Roth (Fisheries and Wildlife majors) with Dean Current, Department of Forest Resources, CNR

“Empowering Communities With Collaborative Filtering,” Michael Cassano (Computer Science major) with John Riedl, Department of Computer Science and Engineering, IT

“Detection and Transfer of Tetrocycline Resistance in Bacteria Cultivated From a Wastewater Treatment Plant,” Leslie Onan (Environmental Science major) with Timothy LaPara, Department of Civil Engineering, Cross College

“Neural Mechanisms of Cancer Pain,” Shaundra Ziemann (Biology major) with Donald Simone, Department of Oral Science, Cross College

The wide range of activities these examples reflects is testament to the rich opportunities available for undergraduate research at the University of Minnesota.

Data indicate that undergraduates gain satisfaction from carrying out research, do better than their peers academically and are more likely to graduate and to complete the degree in a timely manner than students who lack a research experience. It would benefit the students concerned and the institution therefore to increase participation in undergraduate research. This would allow more students to benefit directly from the research activity

on our campuses and, the data suggest, would lead to an improvement in retention and graduation rates. A downside of increasing the numbers of students doing research is the additional time that faculty would need to spend advising and mentoring students. Additional funds would be needed to expand the UROP program.

Many other universities run UROP or programs like it, along similar lines to that at the UofM. In providing support to students across the whole university and all disciplines, including projects outside the undergraduate colleges, the University of Minnesota has an exemplary program. In providing information to students about research opportunities and in disseminating research results, however, other universities have adopted practices that are worth considering at Minnesota. Examples of these include:

- Campus wide undergraduate research forum or symposium. Ohio State University holds a day-long research forum – the Denman Undergraduate Research forum – in May, open to student in all disciplines. This is very similar to what is proposed for the expanded research symposium on the Twin Cities campus.
- A regional undergraduate research symposium. Five universities in the Chicago area (University of Chicago, the University of Illinois at Chicago, Loyola University Chicago, Illinois Institute of Technology and Northwestern University) share in a research symposium at which student in sciences and engineering give oral and poster presentations. Awards are given to top presentations from each campus.
- Public display of undergraduate research at the state capitol. Students from 15 University of Wisconsin campuses contribute to a poster display in the rotunda of the state capitol in April, bringing the attention of state legislators to undergraduate research.
- Undergraduate Research Journal. Northwestern University publishes a journal of undergraduate research, founded by undergraduates in 2003. The content focuses of science and engineering. The whole enterprise is run by undergraduates.

Many universities give prominent display on web pages to research opportunities, although these are usually at the college level or for summer programs.

Are there disciplinary areas where more opportunities are needed? If so, how might interest in research be stimulated?

Yes. Currently opportunities vary greatly according to discipline. They are highest in the lab sciences and engineering, being especially good in CBS and CNR on the Twin Cities campus and in similar disciplines at UMD and UMM (although the latter lacks engineering). They are much less good in CALA, CHE and CSOM and in many areas within CLA in the Twin Cities. One approach to broadening the disciplinary base of UROP projects would be to encourage collaborative projects across disciplines and

across colleges, with an emphasis on drawing in disciplines that have been underrepresented. Examples of successful collaboration could then be used to attract more proposals. Greater visibility to presentation of research results, such as at the expanded undergraduate research symposium, would encourage more students to become involved.

What are the functions and outcomes of the various summer research programs that bring together UofM students and students from other colleges/universities? How does the focus of these programs differ from others?

The summer programs bring UofM students working side by side with students from across the country, thus adding diversity of background to the educational experience of both groups. Since many of the summer programs have an emphasis on underrepresented groups of students this increases another element of diversity. A hoped for outcome is a cross fertilization of ideas – the students coming to campus will have had different educational experiences to those of students at the university in the same fields, and a synergy in learning will result.

From the point of view of NSF, the purpose of the REU programs – which constitute a large fraction of our summer programs – is to provide research opportunities to students from institutions that lack a research infrastructure. From the departmental and faculty points of view at the university, a prime purpose of the summer programs is to bring talented students to campus and subsequently to attract highly qualified applicants from diverse backgrounds to our graduate programs. To the extent that this is successful, it increases the quality of research done in our graduate programs and helps keep the university competitive among its peers in attracting to its graduate programs the most qualified undergraduates in the country.

What sorts of research experience are most appropriate for freshmen and sophomores?

The level of academic maturity of entering freshman varies greatly. A few are sufficiently well prepared and motivated to carry out meaningful research in their freshman year. Others may gain sufficient experience during the freshmen year to take on a research project in the sophomore year. The recently created UROP Scholars Program helps students develop this experience and maturity. It would seem wise to limit freshman research experience to the most well qualified students and increase opportunities in subsequent years. One benefit of engaging students sooner rather than later in a research project is the increased commitment to their undergraduate education that such engagement seems to engender. The HASP program in the College of Natural Resources provides a model for how departments and colleges might develop initiatives to support freshman and sophomore in particular disciplines or areas gain research experience, while linking this to the university wide UROP Scholars program.

Is there some common denominator that we can identify that should be expected in all undergraduate research experiences - from UROP to credit bearing to summer programs?

The most important common denominator is engagement with faculty. This is a common element in almost all the current types of research activity undertaken by students and is likely to be the most significant in providing benefit to the student. A second one is engagement with peers. This occurs in most research groups and in all summer programs.

Should we use undergraduate research grants to help achieve the institutional priority of recruiting more "honors-level" students to the university? Should such students be offered a UROP or similar grant at the time of admissions?

The UROP Scholars and similar HASP program can be viewed as a pilot program in this regard. It involves offering about 12 students a "UROP scholarship" that must be used during the student's undergraduate career. The program brings these students together and prepares them collectively and individually for engagement in research. It is too early to say if this program is successful, but it appears that the offer of a research experience is an attractive inducement to prospective students, and the students in the program in the first two years are all of honors caliber. (We do have one anecdotal report from a very good student who was funded as a HASP scholar. After the first semester here, this person considered transferring to a smaller school and decided not to. They reported that the attention to and support for their individual research was the deciding factor in convincing them to stay at Minnesota.) If the program is expanded the issue of resources would need to be addressed, both in terms of dollars for the scholarships and in terms of faculty time devoted to working with the scholars during the first two years and as advisor for the research. We note that the University of Wisconsin, Madison has a similar program, housed in the College of Letters and Sciences, to help first and second year students gain hands-on research experience.

How can we better coordinate the various undergraduate research efforts at the university to ensure that students are able to easily identify and compare the opportunities that are available to them?

This could best be accomplished by establishing an Undergraduate Research Center. This could be built around and incorporate the UROP office, which currently is the place in the university that keeps the fullest records of undergraduate research efforts, although many of the research experiences counted in this report are not included in any current database. A key part of the center would be a much enlarged web presence, including lists of the various programs and giving the links to the colleges, departments and centers where the various opportunities exist. The expansion of the undergraduate research symposium in the Twin Cities will result in greater exposure to and awareness of the undergraduate research enterprise. The central web site could also list the accomplishments of undergraduates – awards, published papers, presentations at national meetings. A well-constructed and maintained web site could be most effective in

providing more information about research opportunities for all students, from freshmen to seniors.

How can undergraduate research policies and programs support instructional priorities other than student financial support, e.g. increasing the numbers of UofM undergraduates winning prestigious national graduate fellowships and increasing the number of students going to graduate school?

Increasing the visibility of current research program and opportunities will likely lead to more applications for prestigious awards and national recognition. An increase in the number of undergraduates engaging in research experiences is likely to increase the interest in graduate school among our students and increase the competitiveness of our students when applying for graduate school elsewhere. The response to the UROP “alumni” survey indicates that virtually all UROP students go on to graduate school or professional school. There is no reason to doubt that this would be the case also if participation in UROP were increased.

Is there an effective means to use UofM dollars to stimulate our faculty to make more requests for undergraduate support from their federal research sponsors?

There are already strong incentives in NSF and other federal agencies for faculty to create research opportunities for undergraduates. The expense of supporting graduate research assistants, with the high cost of fringe benefits is itself an incentive for faculty to use undergraduate research assistants. An expanded undergraduate research center at the university could also provide faculty with information about federal opportunities for funding that supports undergraduate research. The university might add an additional incentive by considering paying some fraction – say 50% - of the stipend of an undergraduate research position included in externally funded research grants.

It might be noted that there have recently been substantial investments from public and private funds in programs supporting undergraduate research. The National Science Foundation has established three Undergraduate Research Centers (URCs), one in 2004 (at Purdue University) and two in 2005 (at Ohio State University and the University of South Dakota), with a total investment of \$9 million over five years. The Howard Hughes Medical Institute is a major funder of the new Chicago Area Research Symposium. All of these programs are highly collaborative and involve multiple institutions, in the case of the NSF programs including 2-year colleges. The NSF program is specifically focused on the first and second years, with the stated purpose of attracting students into science.

Appendix I Details of the various types of undergraduate research experiences

“Research” courses – courses that involve independent study or research. They are grouped into three categories: *independent study/directed study*; *research*; *senior project*. There is inevitably some degree of arbitrariness about what should be included or excluded, especially with courses taken in the senior year, many of which have some “capstone” element that may or may not include research or independent scholarly activity. Majors that require a senior project with a research/scholarly activity component include on the Twin Cities campus Anthropology, Astronomy (BA), Astrophysics (BS), Child Psychology, Communication Studies, Math (BA), Music, and Statistics (BA). Research courses required for these majors are included in the list. All engineering majors require a design project. These are not included here, nor are nearly all courses that are internships or practicums. All of these have an element of professional preparation that was felt to be outside of what most would consider falling under the category of research.

Students graduating with Latin honors must complete an honors thesis or project, and courses that are used in satisfying this requirement are included in the list.

The list of “research” courses in the three categories follows, together with the individual course numbers and enrollment totals (in parentheses) for the period Summer 2004 through Spring 2005. For courses under different designators but with the same title, the collective enrollment is given at the end of the list. Full titles and course descriptions can be found in the University Catalogs.

UMTC

Independent/Directed Study

- Biol Coll Dir Std (BIOL 1093) (14)
- Dir Studies for Adv Student (AGRO 4093) (12)
- Dir Study in DHA (DHA 5193) (23)
- Dir Study in WCFE (WCFE 5993) (3)
- Dir Study Writing (ENGW 5993) (11)
- Dir Study: BIE (BIE 5993) (1)
- Dir Sty in AgEE (AFEE 5993) (4)
- Dir. Study RPLS (REC 3993) (13)
- Directed Instruction in CPsy (CPSY 4993) (24)
- Directed Readings (HNDI 5993, PLSH 5993) (3)
- Directed Studies (AMST 3993, BAE 3093, CHIC 3993, CHIC 5993, CLAS 3993, CNES 3993, CNES 5993, ECON 3993, EEB 4993, GCD 4993, GEOG 3993, GER 3593, GER 3993, GRK 3993, HSCI 5993, LAT 3993, LAT 5993, MICB 4993, MUS 3993, NSCI 4993, PBIO 4993, PHIL 3993, PHIL 4993, PHIL 5993, PHYS 3993, RELA 3993, SALC 5993, SW 4693, TESL 5993) (105)
- Directed Studies in Agronomy (AGUM 4494) (1)
- Directed Studies in ESL (ESL 993, ESL 994) (39)
- Directed Studies: WI (GCD 4793W, NSCI 4793W) (7)

Directed Study (ABUS 4993, AFRO 3993, ANTH 4993, ARCH 3993, ARCH 5993, ARTH 3993, BP 3393, CHEN 4593, CHN 5393, CSCL 3993, CSCL 4993, CSCL 5993, ECON 4993, ENGL 3993, ENR 4293, ES 4093, FR 4293, GLOS 3993, HIST 3993, HIST 5993, ID 3993, INET 4193, JOUR 3993, JOUR 5993, KIN 1993, KIN 3993, LING 5993, MATH 4993, MATS 4593, NRES 4293, PSY 3993, RRM 4293, SLHS 5993, SOC 3093, SOC 4093, SOIL 4093, TH 3993, TH 5993, TRIN 5993, URBS 3993, WOST 3993, WOST 4993, WOST 5993) (398)

Directed Study in KIN Honors (KIN 3993H) (3)

Directed Study: EOH (PUBH 5193) (2)

Directed Study: Special Area (PSY 4993) (116)

Dynamics Problems (AEM 4495) (2)

Geo Problems: Jr (GEO 3093) (1)

Geo Problems: Sr (GEO 4093) (5)

Independent Study (BA 3998) (14)

Physiology Problems (PHSL 3095) (2)

Problems: EdPA (EDPA 5095) (2)

Problm Solvng & Plnng in NR (ENR 4195W) (19)

Special Topics in Agronomy (AGRO 5999) (1)

Solids Problems (AEM 4595) (3)

Special Problems (BAE 5095) (1)

Research

CE Research (CE 5094) (4)

Dir Res in Child Psych(Honors) (CPSY 4994V) (20)

Dir Research (CHEM 4094W, CHEM 2094, DH 4294W) (105)

Directed Research (ANTH 4994W, ARTH 5994, AST 4994W, BIOC 4994, CHEN 4594, CSCI 5994, EEB 4994, GCD 4994, GEOG 3994, HIST 3994, HIST 5994, MICB 4994, NSCI 4994, PBIO 4994, PHYS 3994, PHYS 5994, PSY 3994, SPAN 5990, WOST 4994) (363)

Directed Research: WI (BIOC 4794W, EEB 4794W, GCD 4794W, MICB 4794W, NSCI 4794W, PBIO 4794W) (145)

Directed Research in Child Psy (CPSY 4994) (204)

Directed Research in MVB (MVB 5594) (3)

Directed Research in Psych (PSY 4993) (118)

Directed Research: Senior Proj (SOC 4094W) (22)

Honors Research (ENR 4802H, FW 4801H, FW 4802H) (5)

Honors Research Seminar (COMM 3190H) (3)

Honors: App Res/Res Util (NURS 4404H) (5)

Senior Project

Honors Capstone Project (HE 4160H) (21)

Honors Thesis (ARTS 3416H, CSCL 4944H, JOUR 4993H, LING 3052H, POL 3110H, SLHS 3555H) (203)

Honors Thesis I (ME 4081H) (5)

Honors Thesis II (ME 4082H) (6)

Major Project (COMM 3995, ECON 3951, MUS 3995) (287)
Senior Paper (STAT 4893W) (12)
Senior Project (ANTH 4013) (11)
Senior project (WI) (MATH 4997W) (19)
Senior Project for CLA (MATH 4995) (7)
Senior Thesis (GEO 4094, PHYS 4950H) (5)
Sr Honors Proj I (EE 4981H) (18)

UMD

Independent/Directed Study

Dir Study (LANG 3091) (2)
Dir Study Eur Art (ARTH 4491) (1)
Dir Study Ren, Bar (ARTH 5391) (1)
Directed Instruction (PSY 3999) (20)
Directed Proj Comm (COMM 4399) (12)
Directed Readings (HIST 3091) (6)
Geologic Problems (GEOL 5091) (2)
Ind Study (ECE 4991, FR 3591, GER 3591, LING 8591, PEP 4991) (28)
Ind Study Ceram (ART 4491) (8)
Ind Study Drawing (ART 4791) (4)
Ind Study Elec Art (ART 5091) (1)
Ind Study Graphic Design (ART 5991) (26)
Ind Study in Print (ART 4391) (1)
Ind Study Ling (LING 3591) (1)
Ind Study Paint (ART 4191) (6)
Ind Study Photo (ART 4691) (15)
Indep Study (ECON 4991, REC 4991) (10)
Indep Study Cultural Studies (CST 4691) (4)
Indep Study Geog (GEOG 3991) (1)
Indep Study in Anth (ANTH 4691) (2)
Indep Study in Dn (DN 3991) (3)
Independent Stu (ENGL 5591) (5)
Independent Study (CC 3991, CHE 3791, CHEM 1191, COMP 5591, CS 4991, CSD 5091, ECH 4991, EDUC 4991, ELED 4991, FMIS 3991, GEOL 3091, GER 3591, IE 4491, JOUR 3991, MATH 5991, ME 4491, MU 3991, PHIL 5991, POL 4191, SPAN 4091, SPED 5991, TH 5991, WWS 3891) (110)
Independent Study Anthropology (ANTH 3691) (1)
Independent Study In Sociology (SOC 4991) (7)

Research

Chem Engr Res (CHE 3894) (3)
Chemistry Research (CHEM 3194) (44)
Directed Research (HIST 5094, PSY 3994) (23)
Directed Rsrch Comm (COMM 4394) (4)
Field Res in Arch (ANTH 4696) (7)
Hon Chemical Engr Research (CHE 3994) (1)

Honors Art Education Research (ART 4891) (1)
Honors Project (ANTH 4699, PSY 3997, SOC 4999) (4)
Honors Research (PSY 3998) (10)
Research in Psychology (PSY 3995) (9)
Undergrad Res (BIOL 3994) (15)

Senior Project

Senior Paper Art History (ARTH 4999) (4)
Senior Present/Exhibit (ART 4899) (110)
Senior Project (IS 3099) (6)
Senior Project Geog (GEOG 5999) (13)
Sr Design Proj I (ECE 4899) (17)
Sr Design Proj II (ECE 4999) (20)

UMM

Independent/Directed Study

Directed Study (Anth 1993, Chem 1993, Econ 1993, Ed 1993, Engl 1993, Fren 1993, Geol 1993, Ger 1993, Hum 1993, IS 1993, Ital 1993, LAAS 1993, Mgmt 1993, Math 1993, Phil 1993, Phys 1993, Pol 1993, Psy 1993, Russ 1993, Soc 1993, Span 1993, Stat 1993, Th 1993, WSS 1993) (11)
Directed Study (Anth 2993, Chem 2993, Dnce 2993, Econ 2993, Ed 2993, Engl 2993, Fren 2993, Geol 2993, Ger 2993, Hum 2993, IS 2993, Ital 2993, LAAS 2993, Mgmt 2993, Math 2993, Phil 2993, Phys 2993, Pol 2993, Psy 2993, Russ 2993, Soc 2993, Span 1993, Stat 2993, Th 2993, WSS 2993) (42)
Directed Study (Anth 3993, ArtH 3993, ArtS 3993, Chem 3993, Dnce 3993, Econ 3993, Ed 3993, ElEd 3993, SeEd 3993, Engl 3993, Fren 3993, Geol 3993, Ger 3993, Hist 3993, Hum 3993, IS 3993, Ital 3993, LAAS 3993, Mgmt 3993, Math 3993, Phil 3993, Phys 3993, Pol 3993, Psy 3993, Russ 3993, Soc 3993, Span 1993, Spch 3993, Stat 3993, Th 3993, WSS 3993, WoSt 3993) (133)
Directed Study (Anth 4993, ArtH 4993, ArtS 4993, Biol 4993, Chem 4993, CSci 4993, Dnce 4993, Econ 4993, Ed 4993, ElEd 4993, SeEd 4993, Engl 4993, Fren 4993, Geol 4993, Ger 4993, Hist 4993, Hum 4993, IS 4993, Ital 4993, LAAS 4993, Mgmt 4993, Math 4993, Phil 4993, Phys 4993, Pol 4993, Psy 4993, Russ 4993, Soc 4993, Span 1993, Spch 4993, Stat 4993, Th 4993, WSS 4993, WoSt 4993) (124)
Practicum in Social Sciences (IS 3800) (61)

Research / Senior Project

Senior Research Seminar in Economics and Management (Econ 4501) (0)
Research Seminars (Engl 4004, 4006, 4007, 4008, 4009, 4010, 4011, 4012, 4013, 4014, 4015, 4016, 4017, 4018, 4019, 4021) (33)
Tutorial in History (Hist 4110-4120) (59)
Senior Honors Project (IS 4994H, POL 4994H) (5)
Empirical Investigations (Psy 4710, 4720, 4730, 4740, 4750, 4760) (29)
Research Symposium (Span 4001) (0)

Seminar in Anthropological Theory (Anth 4901), Capstone Assessment (ArtH 4901) Senior Exhibit (ArtS 4901), Senior Seminar (Biol 4901), Seminar II (CSci 4901), The Teacher and Professional Development (EIEd 4901), The Teacher and Professional Development (SeEd 4901), Senior Seminar (Fren 4901), Independent Study in French Abroad (Fren 4991), Geology Senior Seminar Presentations (4902), Senior Project (Ger 4901), Senior Seminar (Math 4901), Senior Project (Mus 4901), Senior Philosophical Defense (Phil 4901), Senior Thesis (Phys 4901), Senior Research Seminars (Pol 4901, 4902), Independent Project Seminar (Soc 4991), Speech Communication Seminar I (Spch 4900), Speech Communication Seminar II (Spch 4901), Senior Seminar (Stat 4901), Senior Project (Th 4901), Assessment of Student Learning in Women's Studies (WoSt 4901) (252)
Variable Topics in Economic Research (ECON 4903, 4907, 4908, 4909, 4910, 4911) (41)

UMC

Independent/Directed Study

Directed Studies (AGEC 1803, ASM 1803, AVIA 1803, FSCN 1803, GNAG 1803, GNED 1803, HRI 1803, ITM 1803, NATR 1803, SRM 1803) (47)

Individual Studies (AGEC 3804, ANSC 3804, ASM 3804, AVIA 3804, BM 3804, EQSC 3804, GNAG 3804, GNED 3804, HRI 3804, ITM 3804, MGMT 3804, NATR 3804, PIM 3804, SRM 3804) (125)

Research (0)

Senior Project

Seminar in SRM (SRM 4099) (11)

Employment as a student researcher – Employment records during the period Summer 2004 through Spring 2005 were searched to find undergraduates on the Twin Cities, Duluth and Crookston campuses who held positions that involved research or work as a scientist in a research lab. There are four job titles that fit this requirement:

Science/Engineering-Advanced Lvl
Science/Engineering-Entry Lvl
Undergrad Research Asst I
Undergrad Research Asst II

All appointments in these categories that started or ended during the period Summer 2004 through Spring 2005 were counted. A number of students had several appointments in this time interval. Also, there were a number of students in professional programs holding "Science/Engineering" appointments, and these were omitted from the resulting list and figures used in the report. Appointment titles are different on the Morris campus

and coded in such a way as to make it impossible to distinguish research-related from other campus jobs.

UROP participation – Complete records of UROP participation, including the numbers of proposals submitted and funded each year by campus and college, are kept in the UROP office. This is the source of information used in this report. Details are provided for the past 10 years. In addition a survey was made of UROP ‘alumni’ who carried out projects during the 1998-99 academic year. Questionnaires were sent out to the 401 award recipients and 41 responses were received.

Summer Research Programs – there are about 15 summer programs that provide research experiences, supported by a mix of external (largely NSF) and internal funds. Details of participation in these during 2004 were obtained by a questionnaire sent to all departments, centers and units on the four campuses. Some information was also obtained from scanning university web sites. The number include in this report is a minimum; it is likely that a few programs have been omitted through lack of response to the questionnaire.

Special Programs – These include the Beckman program, the HASP program in the College of Natural Resources and the Morris Academic Partnership Program.

Appendix II Details of the Survey Distributed to Departments, Centers and Units

A. Request letter accompanying the survey sent in early April, 2005 to appropriate contacts in departments, centers and other units across the university:

To: Directors of Undergraduate Studies and Contacts in Colleges and Centers

From: Peter Hudleston, Chair, Task Force on Undergraduate Research
Professor, Department of Geology and Geophysics
Associate Dean for Student Affairs, Institute of Technology

Re: Survey of Research Opportunities for Undergraduates at the University of Minnesota

c: Vicky Munro, Staff Support for the Task Force
UROP Coordinator

Last fall, Vice Provosts Craig Swan and Victor Bloomfield established a task force to review the status of undergraduate research at the University of Minnesota. In their charge to the task force, Vice Provosts Swan and Bloomfield state:

“As we seek to articulate the unique advantages to undergraduates of attending a research university, we often cite the importance of undergraduate students being involved in research with faculty. For twenty years, the University of Minnesota has offered programs that encourage and support undergraduate involvement in research. As the research mission for undergraduates becomes ever more important, it is appropriate to step back and look thoughtfully at our policies and practices regarding UROP and other undergraduate research programs, to determine whether we are serving students’ educational needs in the best way, and to assure that we have the optimal investment strategy for undergraduate research opportunities.”

In order to do its job, the task force needs to take inventory of current undergraduate research activities and opportunities across the university. Although we have extensive information about centrally sponsored programs such as UROP, we have only fragmentary information about the numerous other activities that are going on in the colleges, departments and centers across the university. We ask your help in providing us with information about these activities. We hope that you or some other appropriate individual or individuals in your department or area can provide us with the information requested on the attached survey form. The information can be collected in whatever way is easiest for you, but we would like a summary on a single form for each department or area. To assist in central compilation of the data, we prefer that this summary be submitted on line at: www.xx.

The task force has been asked to make a report by the end of spring seminar. We apologize for adding to your plate at this busy time of year, but we would really appreciate it if we could get the information requested by April 8.

Thank you.

B. Results

The first number in each cell or line below is the number of departments/centers/units who gave a response. The second (in parentheses) is the sum of responses from all respondents.

Research/Scholarly/Creative work: *“Focused, systematic study and investigation undertaken to increase knowledge and understanding of a subject. The term is used inclusively to refer to scholarly, empirical, creative, critical, and/or expressive activities in the sciences, humanities, arts, and other scholarly fields, pure and applied, which expand, clarify, reorganize, or develop knowledge or artistic perception.”* (Definition: modified from Southern Illinois University’s Office of Research and Development Administration Glossary of Research terms.)

How many undergraduate students are involved in a research activity specific to your department/area (do not include UROP)? Please include all students, regardless of major, who are doing a project in your department. Count each experience only once, and note that students may have more than one experience during the year and more than one outcome for each experience. Please place tally or approximate number into spaces below (note: there is one table for Summer 2004 and a second table for Academic Year 2004-2005).

SUMMER 2004										
Student Year	Type of Work				Outcomes					
	Non-funded independent (credit or volunteer)	Funded independent (assistant-ship, scholarship, etc.)	Class projects that conform to research definition	Other	Satisfy major req. or capstone	Satisfy honors requirement	Publication	Public performance or conference presentation	Other paper or presentation outcome	Other
Freshman	1 (10)	1 (1)								1 (10)
Sophomore	4 (21)	9 (16)	3 (9)	3 (6)	1 (1)		2 (3)	5 (14)	3 (9)	4 (23)
Junior	5 (33)	17 (85)	3 (23)	5 (29)	3 (3)	2 (3)	6 (10)	8 (46)	5 (43)	5 (47)
Senior	11 (50)	15 (82)	6 (23)	3 (5)	7 (43)	2 (7)	4 (21)	7 (35)	4 (10)	6 (19)

ACADEMIC YEAR 2004-2005										
Student Year	Type of Work				Outcomes					
	Non-funded independent (credit or volunteer)	Funded independent (assistant-ship, scholarship, etc.)	Class projects that conform to research definition	Other	Satisfy major req. or capstone	Satisfy honors requirement	Publication	Public performance or conference presentation	Other paper or presentation outcome	Other
Freshman	4 (15)	2 (4)	6 (117)	1 (3)	2 (4)				1 (2)	2 (15)
Sophomore	8 (26)	8 (22)	8 (179)	4 (12)	7 (43)	1 (1)	3 (4)	2 (16)	3 (4)	4 (35)
Junior	17 (89)	16 (72)	13 (377)	5 (19)	11 (139)	4 (14)	4 (5)	8 (39)	5 (33)	7 (69)
Senior	23 (347)	17 (108)	16 (702)	6 (30)	18 (564)	17 (122)	8 (41)	11 (219)	10 (91)	14 (114)

Explanation of Other:

Because the same students may be involved in more than one research experience during the same year, please estimate the **total number of individual students** that have taken part in the activities listed above: 42 (2040)
The number on the line above from majors outside your department 31 (722)
The number (summer programs) from outside the University of Minnesota 16 (102)

Funding Information

If students receive funding for their research work in your department/area, please estimate the total funding available from each of the following sources.

Funding Source	Approx. Amount \$\$
Faculty/Staff Research Funds	24 (\$867,220)
Dept. O & M Funds	9 (\$216,642)
Gifts or Endowed Funds	10 (\$293,597)
REU funds	9 (\$551,111)
Other	9 (\$276,022)
TOTAL	(\$2,204,592)

Explanation of Other:

Advising Information

Who advises/mentors students doing research?	
Faculty	43 (3666)
Post-docs	9 (209)
Grad students	13 (321)
Staff	10 (203)
Other	3 (92)

Explanation of Other:

Other Information

How are research opportunities publicized in your area?

Please include any comments or concerns you have regarding opportunities for undergraduate researchers in your area.

Appendix III

Abbreviations/acronyms used in the report

AAR	Academic Aptitude Rating
ACT	Academic College Test – national college entrance test
AHPCRC	Army High Performance Computing Research Center
CALA	College of Architecture and Landscape Architecture
CBS	College of Biological Sciences
CEHSP	College of Education and Human Service Professions
CIC	Council on Institutional Cooperation - Big Ten organization
CLA	College of Liberal Arts (Twin Cities campus)
CNR	College of natural Resources
COAFES	College of Agriculture, Food and Environmental Sciences
CSOM	Carlson School of Management
GPA	Grade Point Average
FY	Fiscal Year
HASP	High Ability Scholars Program
IT	Institute of Technology
MAP	Morris Academic Partnership
MIT	Massachusetts Institute of Technology
MMP	Multi-ethnic student Mentoring Program (Morris)
MRSEC	Materials Research Science and Engineering Center
NCUR	National Council on Undergraduate Research
NIH	National Institute of Health
NNIN	National Nano Infrastructure Network
NSF	National Science Foundation
PSEO	Post-Secondary Educational Opportunities
REU	Research Experiences for Undergraduates
STEM	Science, Technology, Engineering and Science
UMC	University of Minnesota, Crookston
UMD	University of Minnesota, Duluth
UMM	University of Minnesota, Morris
UMTC	University of Minnesota, Twin Cities
UROP	Undergraduate Research Opportunities Program

Table 1. Individual Appointments of Undergraduates from Summer 2004 - Spring 2005 by employing college or unit

UMTC		UMD	
Institute of Technology	239	Coll Science & Engineering	109
Medical School	203	College of Liberal Arts	35
Coll of Agric, Food & Env Sci	134	School of Business and Econ	29
College of Liberal Arts	132	Coll Educ Human Serv Prfsn	21
College of Biological Sciences	110	School of Fine Arts	16
College of Natural Resources	89	School of Medicine	14
Academic Health Ctr - Shared	43	Natural Resources Res Inst	10
College of Veterinary Medicine	38	College of Pharmacy	5
College of Human Ecology	32	University Relations	1
Coll Education & Human Devel	30	Total	240
Carlson School of Management	26		
School of Nursing	13		
Facilities Management	9	UMC	
School of Dentistry	6	Academic Affairs	13
System Administration, Sr VP	6	Enrollment Management	1
University Health & Safety	5		
Coll Arch & Landscape Arch	4	Total	14
General College	4		
College of Pharmacy	2	UMM	
School of Public Health	2	Job categories don't allow separation of	
Agriculture Experiment Station	2	research appointments from other job types	
Academic Affairs, SVPP	1		
Humphrey Inst of Public Affairs	1		
Law School	1		
UofM Extension Service	1		
Total	1133		

Appointment Types	
Science/Engineering-Advncd Lvl	35
Science/Engineering-Entry Lvl	523
Undergrad Research Asst I	112
Undergrad Research Asst II	717
Total	1387

Table 2. Individual Appointments of Undergraduates from Summer 2004 - Spring 2005 by college of registration

Individual Appointments by College of Registration

UMTC		UMD	
	Appts		Appts
College of Liberal Arts	292	Coll Science & Engineering	133
Institute of Technology	291	College of Liberal Arts	37
College of Biological Sciences	259	School of Business and Econ	24
Coll of Agric, Food & Env Sci	102	Coll Educ Human Serv Prfsn	24
College of Natural Resources	86	School of Fine Arts	22
Carlson School of Management	32	Coll Continuing Ed (non-degree)	2
College of Human Ecology	17		
School of Nursing	15	Total	242
Coll Continuing Ed (non-degree)	12		
General College	9		
Coll Arch & Landscape Arch	4	UMC	16
Medical School	4		
Coll of Continuing Education	2	UMM	4
Total	1125		

Numbers of Students with Appointments

UMTC		UMD		Percent w Appts	
	Appts		Appts		
College of Liberal Arts	273	Coll Science & Engineering	120	5.33%	
Institute of Technology	260	College of Liberal Arts	36	1.74%	
College of Biological Sciences	232	School of Business and Econ	21	1.20%	
Coll of Agric, Food & Env Sci	90	Coll Educ Human Serv Prfsn	24	1.13%	
College of Natural Resources	72	School of Fine Arts	19	2.92%	
Carlson School of Management	31	Coll Continuing Ed (non-degree)	2	0.33%	
College of Human Ecology	16				
School of Nursing	14	Total	222		
Coll Continuing Ed (non-degree)	12				
General College	8				
Coll Arch & Landscape Arch	4	UMC	15	1.30%	
Medical School	4				
Coll of Continuing Education	2	UMM	4		
Total	1018				

Note 1: The percentage of students in a college with a research appointment is based on the fall 2004 enrollment in the college (from the Official Registration Statistics)

Note 2: The Morris campus was not included in this survey; the four students who appear here held appointments on other campuses.

Table 3. Summer 2004 undergraduate research program

Summer 2004 Undergraduate Research Programs					
Programs	Participants		Gender		Benefits
	U of MN	Non UMN	Female	Male	
AHPCRC	5	14	8	11	\$3500 stipend, room/board
Behavioral and Cognitive Sciences	2	15	14	3	room/board, \$3500 stipend, tuition/fees for 5 credits, travel up to \$500
Bioinformatics Summer Institute	4	10	7	7	\$5000 stipend
Electrical and Computer Engineering					
ECE	0	10	3	7	\$4500 stipend, dorm/meals, travel
NNIN	0	3	0	3	\$3800, dorm only
NSF-REU Geology and Geophysics	0	13	8	5	\$3500 stipend, dorm, travel (\$350)
NSF-REU Mechanical Engr	0	14	5	9	\$3500 stipend, room/board, travel
Life Sciences Summ. Undergrad Res Prgm	7	43	35	15	\$3500 stipend, \$2600 room/board, \$600 travel
MRSEC Research Exper for Undergraduates	2	16	7	11	\$4000 stipend, \$1200 dorm, \$1000 supplies, Up to \$500 travel
Multicultural Summ. Research Opp. Prgm	5	18	12	11	\$3500 stipend, room/board, travel, up to \$500 research expenses, seminars, workshops, GRE prep
National Ctr Earth Surface Dynamics	0	6	3	3	\$3500 stipend, \$500 research stipend, room/board, health insurance, transportation
McNair Scholars Summer Program	13	8	14	7	\$2800 stipend, room/board, GRE prep, writing workshops, grad app assistance
NSF-REU Physics	3	8	3	8	\$3500 stipend, room/board, travel expenses
Undergrad Internship Scientific Comput.	5	6	3	8	\$4600 stipend
Chemistry programs					
Heisig	5	0	4	1	\$4000 stipend
Lando	2	20	9	13	\$4000 stipend
NSF-REU Math UMD campus	0	9	4	5	\$2000 stipend, \$1000 living expenses plus housing
NSF-REU Geology UMM campus					Run in the 1990's, 2000 and 2005
Totals	266	53 20%	213 80%	139 52%	127 48%

Table 4. Research participation of 1999 UMTC freshman cohort and 2003-04 UMTC graduate cohort

1999 Freshman Cohort (size of cohort N = 5150)			
Research Category		GPA by Group	
A Research Course	15.8%	A Research Course	3.241
B UROP	3.7%	B UROP	3.478
C Research Job	11.5%	C Research Job	3.244
Any of A, B, C	23.4%	None of A, B, C	2.797
2003-04 Graduate Cohort (size of cohort N = 6049)			
Research Category		GPA by Group	
A Research Course	22.0%	A Research Course	3.268
B UROP	3.5%	B UROP	3.492
C Research Job	11.5%	C Research Job	3.329
Any of A, B, C	29.1%	None of A, B, C	3.146

Table 5 UROP Funding 1994-95 to 2005-06

	Allocation	Awarded	Additional Funds Provided by:					College	Dept.
			Foster-Wheeler	USEARCH	Lillehei	VProvost	Grad Schl		
1994-1995	\$400,000	\$356,226	\$6,855						
1995-1996	\$425,000	\$332,224	\$10,648						
1996-1997	\$400,000	\$427,715	\$9,160						
1997-1998	\$500,000*	\$441,840	\$3,600						
	*one time addition of \$100,000								
1998-1999	\$400,000	\$503,746	\$9,988						
1999-2000	\$400,000	\$568,801	\$24,314						
2000-2001	\$420,000	\$594,152	\$8,850	\$1,600					
	\$100,000	(Started as soft funding, now hard; earmarked for special projects such as AHC faculty)							
2001-2002	\$460,000	\$681,665	\$19,724						
	\$100,000								
2002-2003	\$470,000	\$661,697	\$32,232	\$3,400					
	\$100,000								
2003-2004	\$470,000	\$708,502	\$26,805	\$3,400			\$10,000		
	\$100,000								
2004-2005	\$470,000	\$808,339	\$25,055	\$1,700	\$3,400	\$15,000	\$39,000	\$6,000 (IT)	\$6,000 (IT)
	\$100,000								
	\$100,000	(Additional money requested in Compact, now part of regular budget)							
2005-2006	\$570,000	NA	no longer avail.	\$1,700				\$37,200 (CSE)	
	\$100,000								

Table 6 UROP Proposals Received and Funded from 1994-95 to 2004-05

Received		1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
UMTC		276	214	257	248	290	269	282	317	281	349	376
UMC		2	1	3	1	1	5	5	11	4	11	10
UMM		21	30	43	28	25	26	19	25	20	20	27
UMD		83	114	101	130	135	103	113	138	171	143	141
All		382	359	404	407	451	403	419	491	476	523	554
Approved		1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
UMTC		257	192	234	228	261	231	256	266	253	280	307
UMC		2	1	1	1	1	4	5	9	4	9	8
UMM		20	26	34	25	20	21	16	18	17	17	23
UMD		77	103	99	121	125	83	107	117	114	117	126
All		356	322	368	375	407	339	384	410	388	423	495
Percent Funded		1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
All		93.2%	89.7%	91.1%	92.1%	90.2%	84.1%	91.6%	83.5%	81.5%	80.9%	89.4%

Table 7. Comparison of research experience reported in the 2004 Senior Exit Survey with data on research experiences collected for the UMTC 2003-04 graduate cohort

	CALA	CBS	CCE	CHE	CLA	CNR	COAFES	CSOM	EHD	IT	Nursing	Overall
A	6.50%	67.00%	9.10%	14.00%	22.10%	25.80%	29.30%	4.30%	5.90%	29.20%	6.90%	21.80%
B	12.6%	74.7%	16.9%	17.1%	30.0%	45.2%	24.6%	19.7%	21.3%	29.2%	29.9%	29.1%
C	4.7%	42.0%	3.9%	4.6%	7.0%	39.7%	19.2%	4.7%	4.1%	22.2%	7.5%	11.5%
D	46	109	66	86	921	31	58	162	101	277	58	1931
E	127	288	284	281	2790	126	203	406	394	857	107	5969
F	36.2%	37.8%	23.2%	30.6%	33.0%	24.6%	28.6%	39.9%	25.6%	32.3%	54.2%	32.4%

Note: Totals in line E include graduates in programs in the Medical School and Dentistry and Veterinary Medicine not otherwise listed in this table.

A Percentage of respondents in the 2004 Senior Exit Survey who answered 'yes' to the question "Did you work with a faculty member on an artistic/research project?"

B Percentage of 2003-2004 UMTC graduates who participated in any one of: UROP, course registration or paid employment research activities

C Percentage of 2003-2004 UMTC graduates who held a paid position as an undergraduate researcher (including UROP)

D Number of respondents in the 2004 Senior Exit Survey who answered the 'research' question in the Exit Survey

E Number of 2003-2004 graduates

F Number of respondents in the 2004 Senior Exit Survey who answered the 'research' question as a percentage of 2003-04 graduates

Registrations in "research" courses				
	UMTC	UMD	UMC	UMM
Ind/Dir Study	828	277	172	371
Research	997	121	0	
Senior Project	432	203	11	419

Students registered in "research" courses				
	UMTC	UMD	UMC	UMM
Summer 2004	302	48	19	76
Fall 2004	872	204	45	267
Spring 2005	1038	287	100	324

Total undergraduate registration (from Official Registration Stats)				
	UMTC	UMD	UMC	UMM
Summer 2004	7744	1857	314	336
Fall 2004	28740	8850	1152	1685
Spring 2005	27096	8267	1041	1583

Percentage students registered in "research" courses				
	UMTC	UMD	UMC	UMM
Summer 2004	3.9%	2.6%	6.1%	22.6%
Fall 2004	3.0%	2.3%	3.9%	15.8%
Spring 2005	3.8%	3.5%	9.6%	20.5%

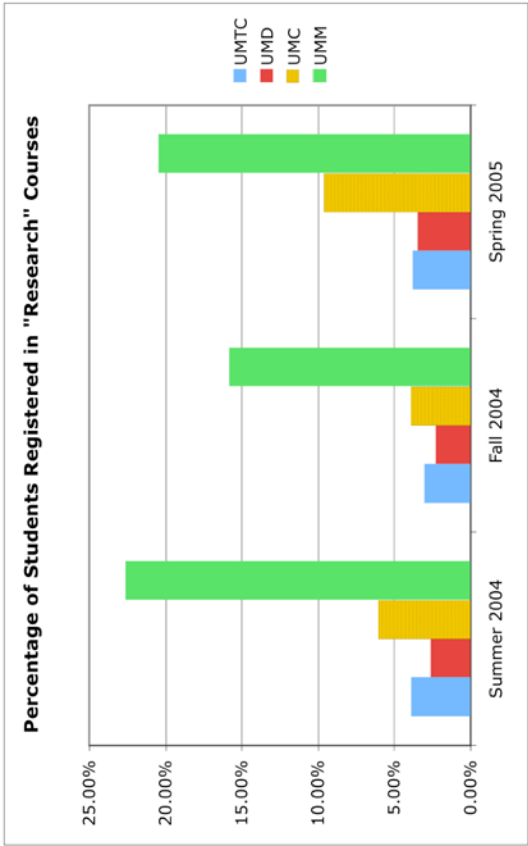
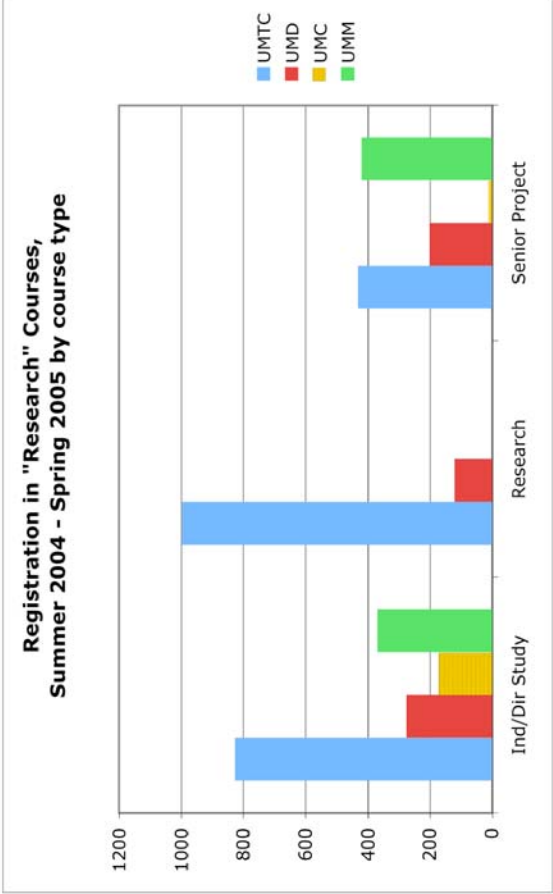
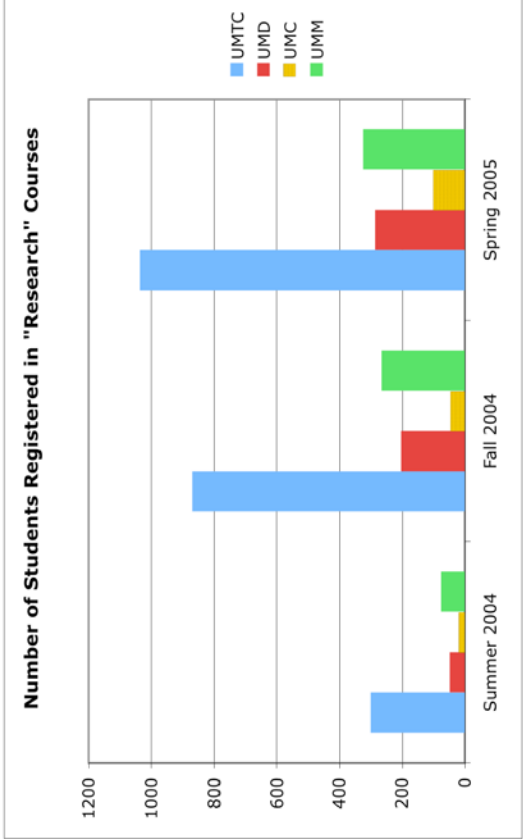


Fig. 1. Registrations in “research” courses in the period Summer 2004 – Spring 2005.

	UMTC	UMD	UMC	UMM
Freshman	22	5	6	15
Sophomore	113	24	24	40
Junior	354	81	42	119
Senior	1643	472	96	599
Non-degree	126	18	15	19
Total	2258	600	183	792

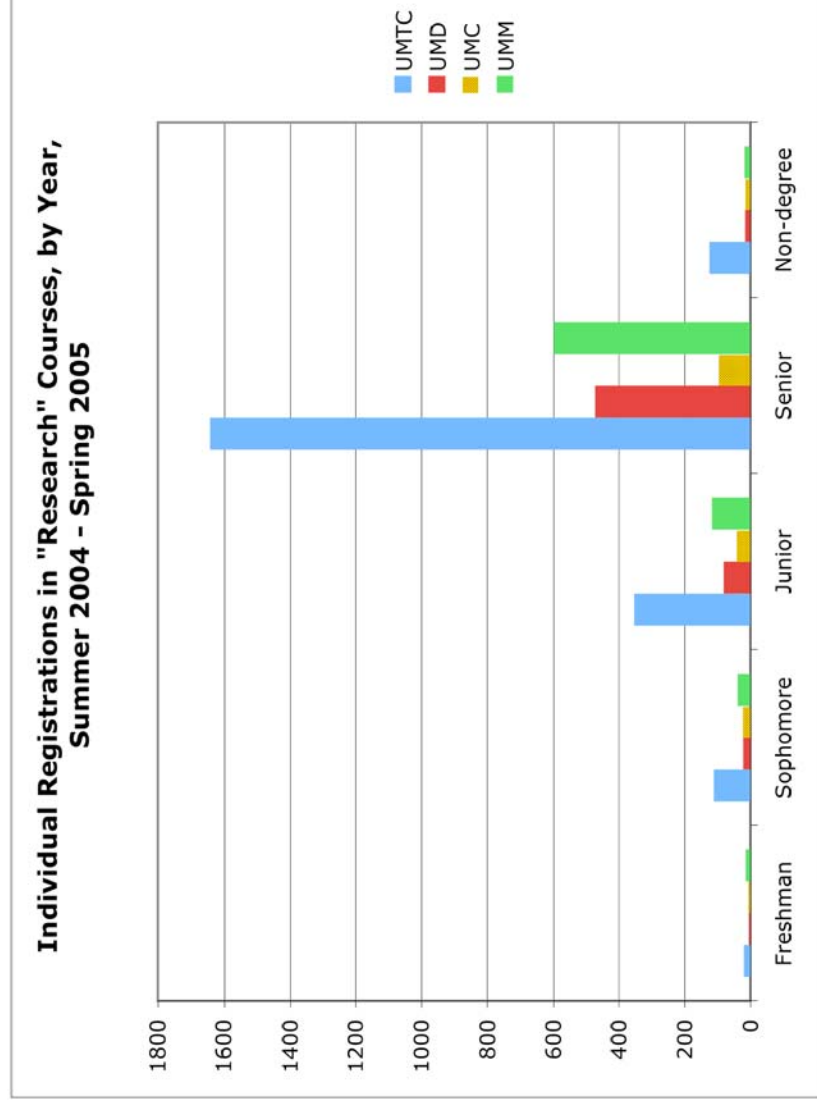
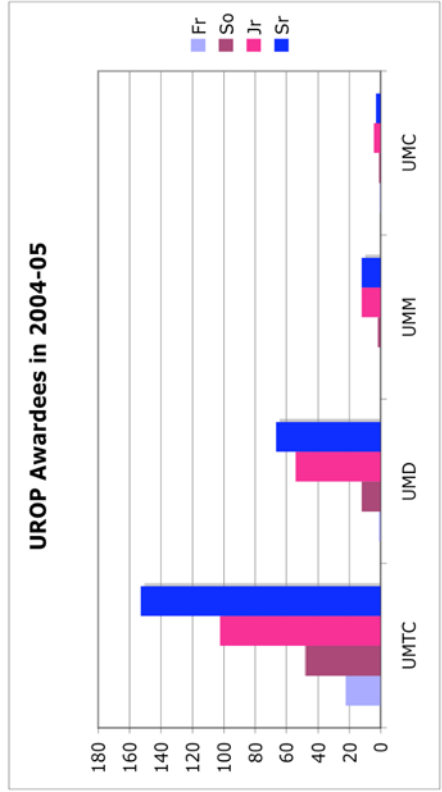


Fig. 2 Registrations in "research" courses by year in the period Summer 2004 – Spring 2005.

By Year	UMTC	UMD	UMM	UMC
Fr	22.5	1	0	0.5
So	48	12	2	1
Jr	102.5	54	12	4.5
Sr	153	67	12	3
	326	134	26	9
Total UG Enroll				
F04	28740	8850	1685	1152
S05	27096	8267	1583	1041
Average	27918	8558.5	1634	1096.5
Percent UROP awards	1.17%	1.57%	1.59%	0.82%

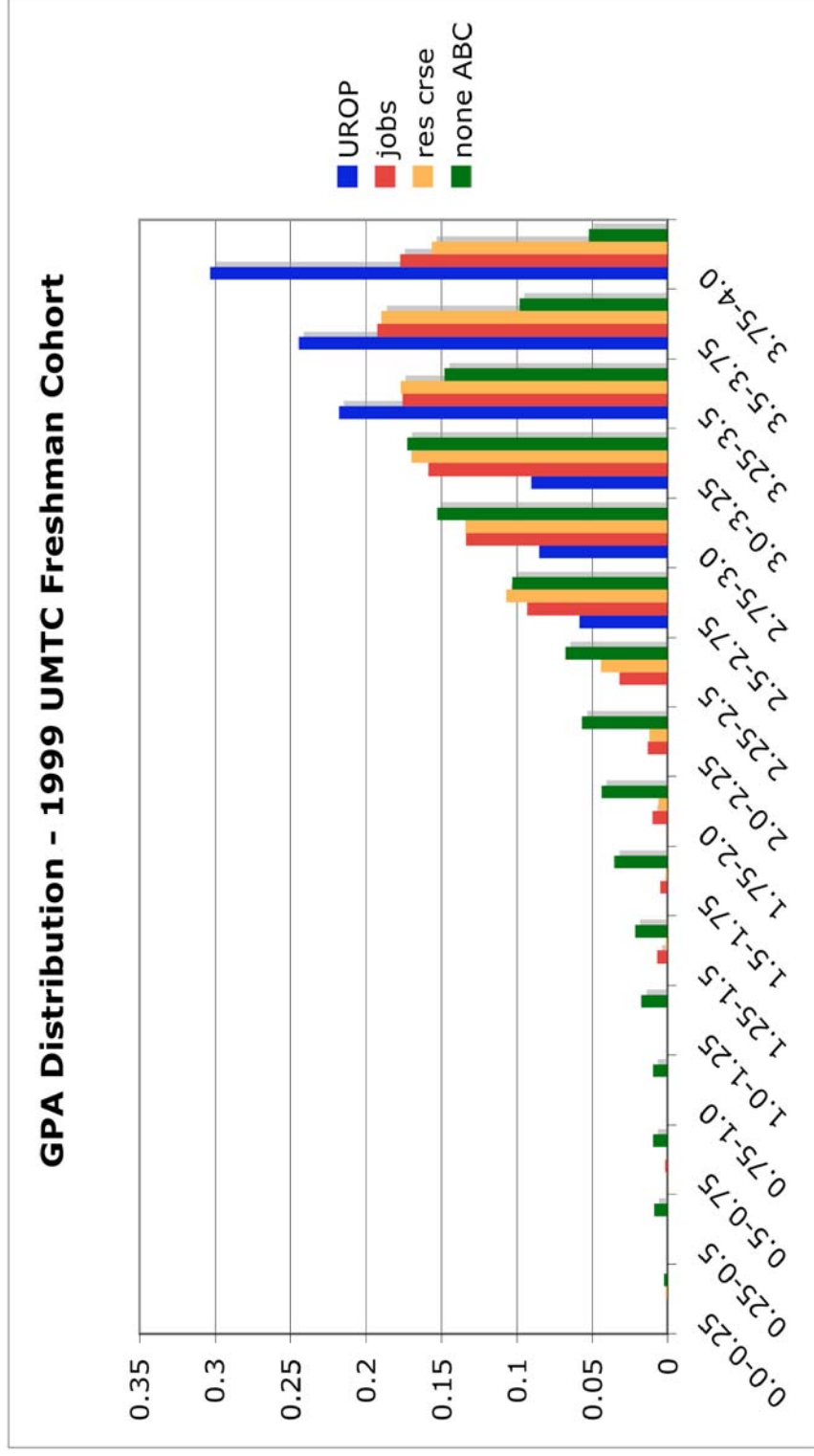


By Field

Field	UMTC			UMD			UMM			UMC		
	UROP awards	Majors (Jrs and Srs)	Percent UROP	UROP awards	Majors (Jrs and Srs)	Percent UROP	UROP awards	Majors (Jrs and Srs)	Percent UROP	UROP awards	Majors (Jrs and Srs)	Percent UROP
Biological Sci	67	1303	5.14%	39	348	11.21%	12	107	11.21%	3	92	3.26%
Physical Sci	46	985	4.67%	27	221	12.22%	5	122	4.10%			
Engineering (& pre-Eng)	92	2026	4.54%	19	293	6.48%		4	0.00%			
Env Sci Ag Nat Res	46	540	8.52%	4	59	6.78%						
Arts & Humanities	30	3830	0.78%	21	643	3.27%	4	251	1.59%			
Social Sci	27	2776	0.97%	17	654	2.60%	5	206	2.43%			
Business	1	1379	0.07%	3	813	0.37%		48	0.00%	4	414	0.97%
Education		495	0.00%	3	810	0.37%		74	0.00%		42	
Other	17	3022	0.56%	1	215	0.47%		41	0.00%	2	92	2.17%
Total	326	16356	1.99%	134	4056	3.30%	26	853	3.05%	9	640	1.41%

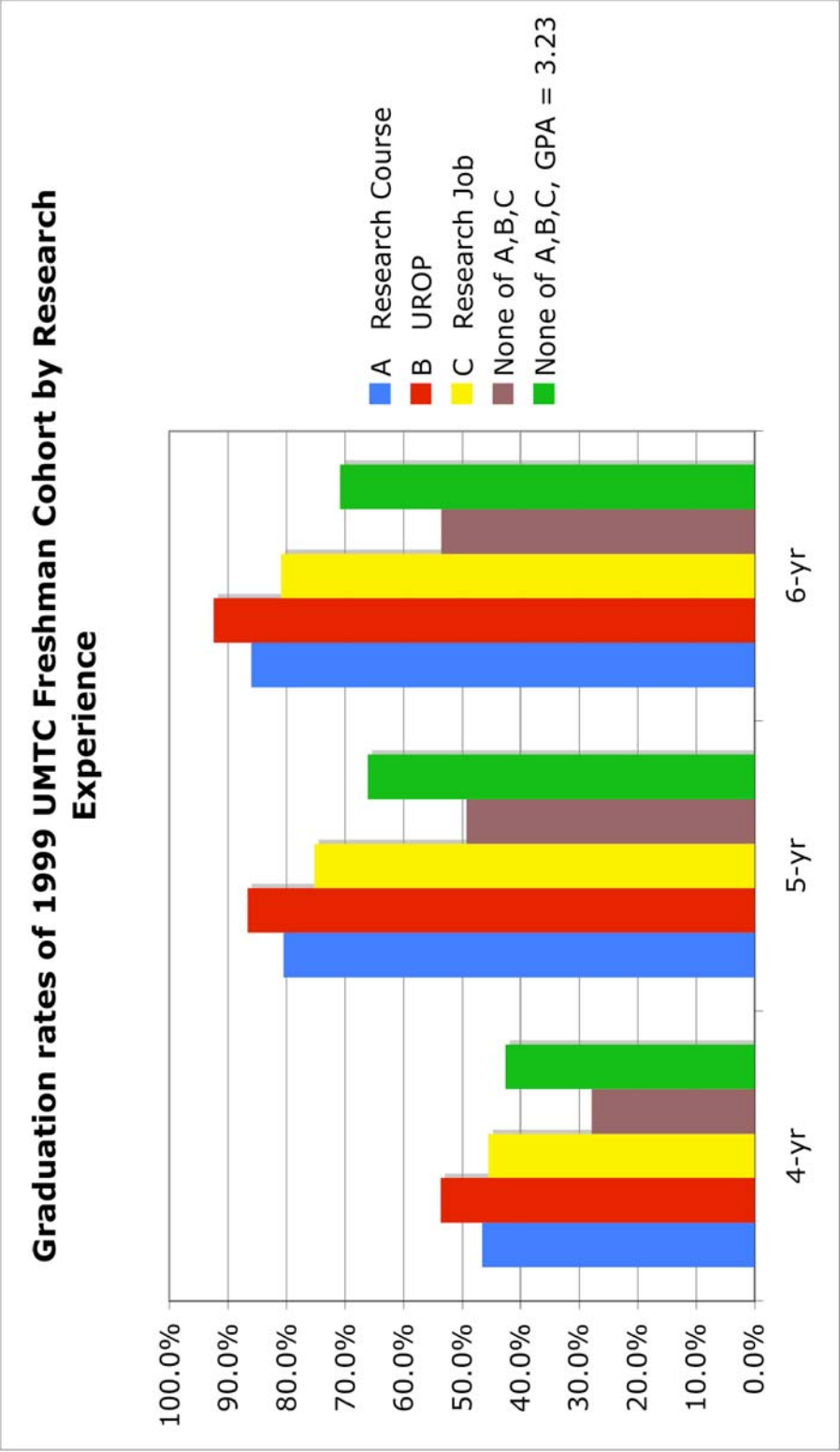
Note: The number of majors includes only Juniors and Seniors (60 or more cr completed) and is based on end-of-second-week enrollment, Fall 2004.

Fig. 3. UROP Awards in 2004-05



Note: GPA is the cumulative GPA at graduation or after the last term of registration

Fig. 4. GPA distributions for four categories of the 1999 UMTC freshman cohort



	A Research Course	B UROP	C Research Job	None of A,B,C	None of A,B,C, GPA = 3.23
4-yr	46.6%	53.7%	45.5%	27.8%	42.56%
5-yr	80.6%	86.7%	75.2%	49.3%	66.17%
6-yr	86.1%	92.6%	80.9%	53.6%	70.85%
GPA	3.241	3.478	3.244	2.749	3.230

Note: GPA is the cumulative GPA at graduation or after the last term of registration

Fig. 5. Graduation rates of the 1999 freshman cohort by research experience

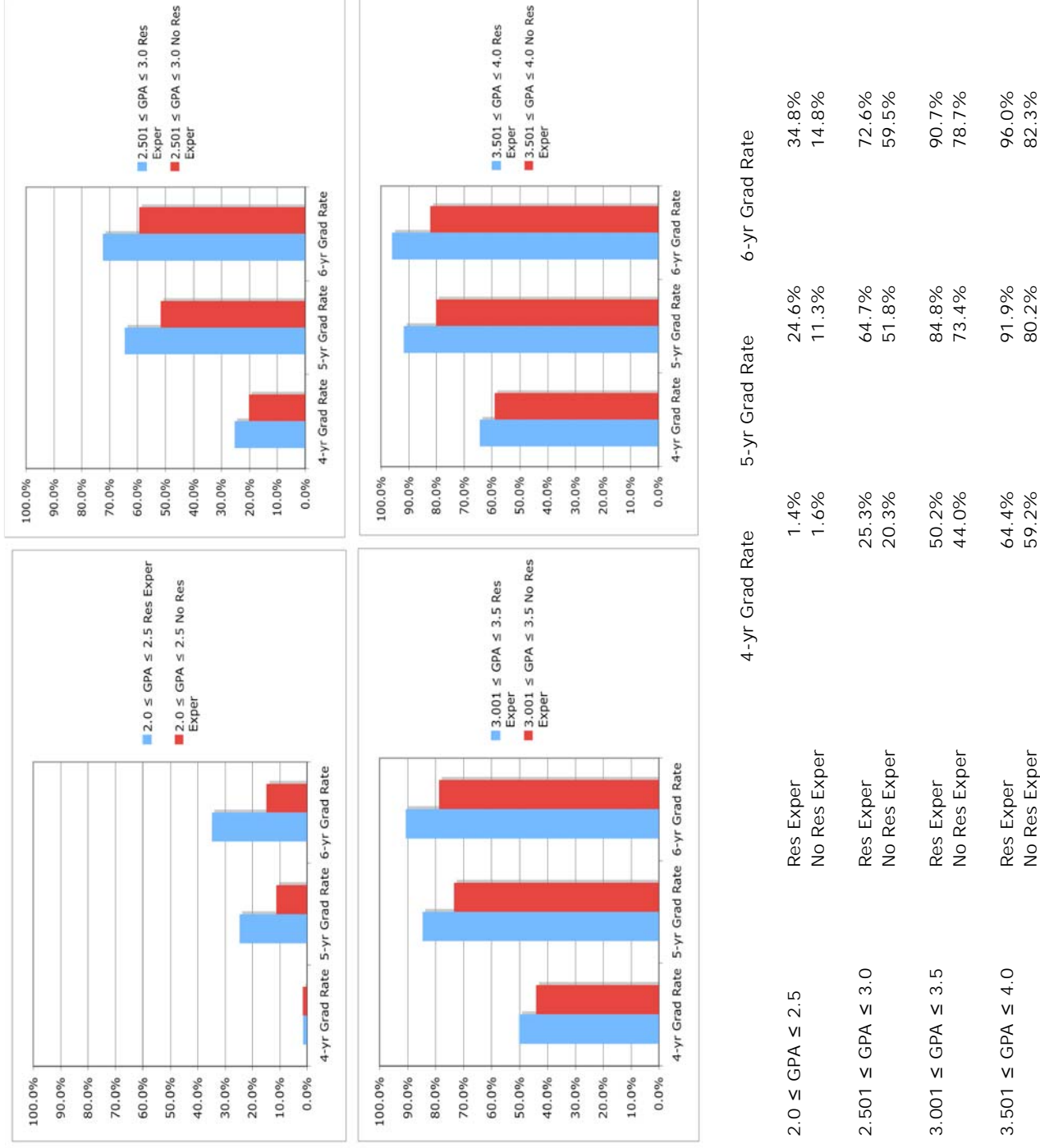
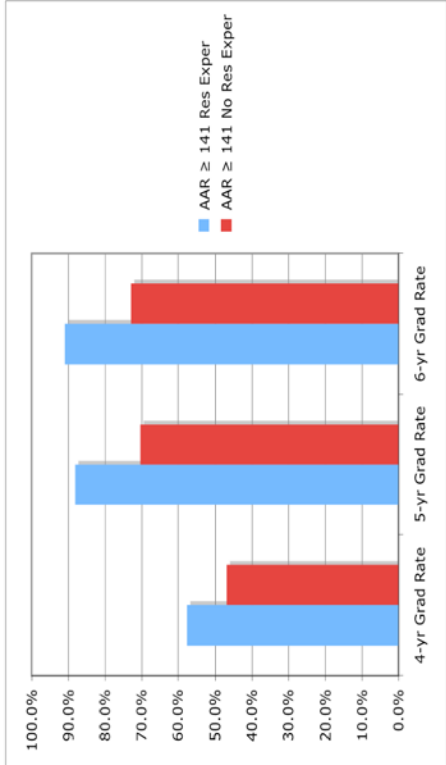
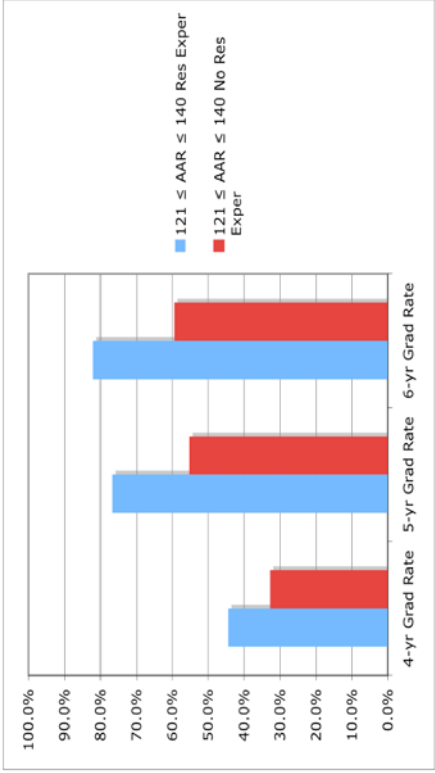
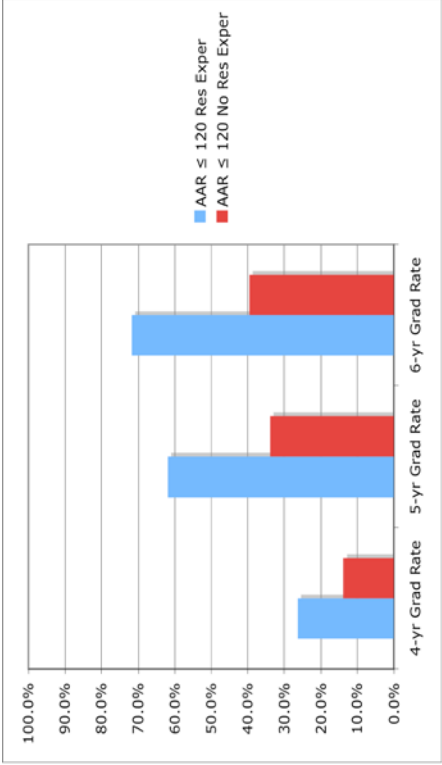


Fig. 6. Graduation rates of UMTC 1999 freshman cohort by research experience and GPA



Note: AAR = High School Rank + Twice the ACT
Comp score

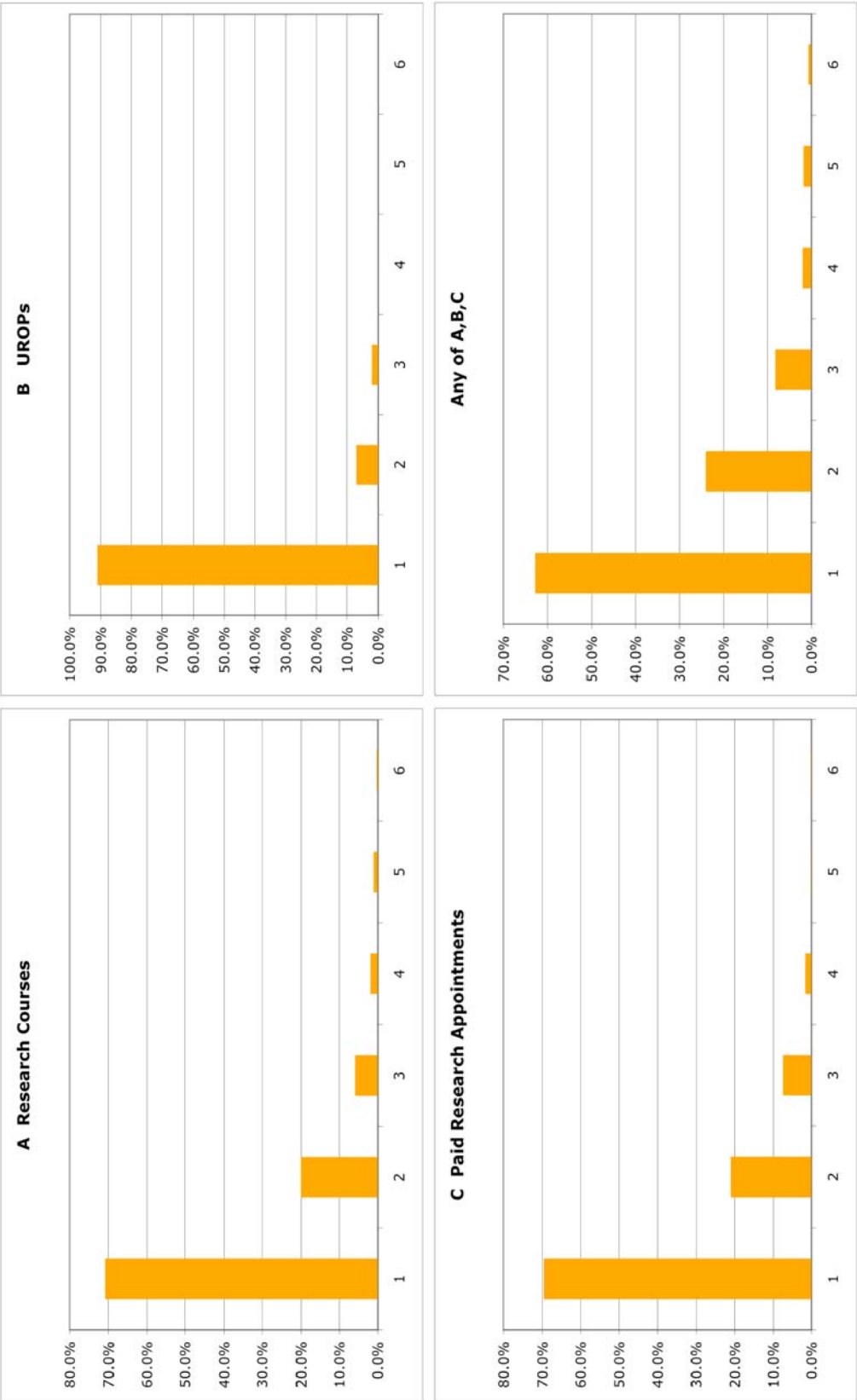
GPA is cumulative at graduation or after last term of registration

		4-yr Grad Rate	5-yr Grad Rate	6-yr Grad Rate	Average GPA
AAR ≤ 120	Res Exper	26.3%	62.0%	71.7%	2.872
	No Res Exper	13.8%	33.9%	39.5%	2.413
121 ≤ AAR ≤ 140	Res Exper	44.5%	76.7%	82.1%	3.109
	No Res Exper	32.7%	55.4%	59.5%	2.826
AAR ≥ 141	Res Exper	57.7%	88.2%	91.0%	3.488
	No Res Exper	46.9%	70.4%	73.1%	3.232

Fig. 7. Graduation rates of UMTC 1999 freshman cohort by research experience and AAR



Fig. 8. Participation in research experiences of 2003-04 UMTC graduates – by college



Number of Experiences	1	2	3	4	5	6	7	8	9
Research Courses	70.7%	20.1%	5.9%	1.9%	1.1%	0.3%			
UROP	91.0%	7.1%	1.9%	1.7%	0.1%	0.1%			
Paid Appointment	69.5%	21.0%	7.4%	1.7%	0.1%	0.7%	0.1%	0.0%	0.1%
Any of above	62.9%	24.0%	8.3%	2.1%	1.9%	0.7%	0.1%	0.0%	0.1%

Note: "Any of above" in this case discounts "double dipping" of UROP and paid appointment

Fig. 9. Number of research experiences undertaken by 2003-04 UMTC graduates

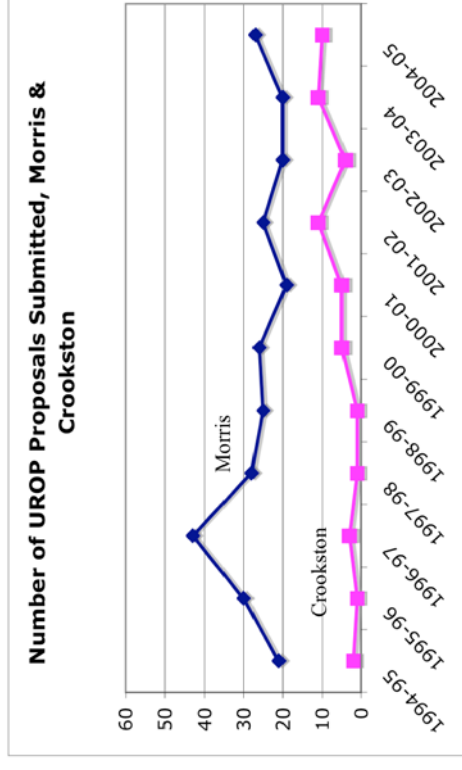
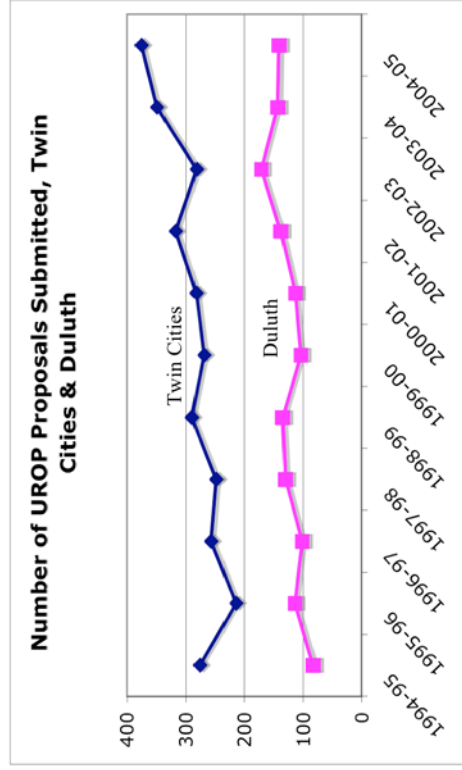
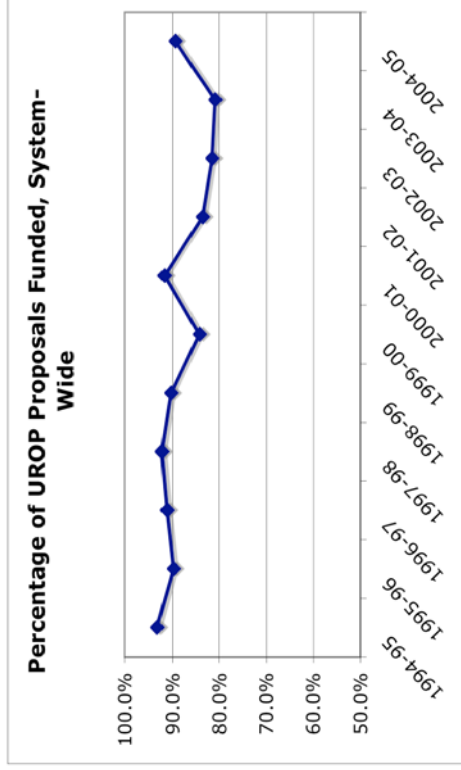
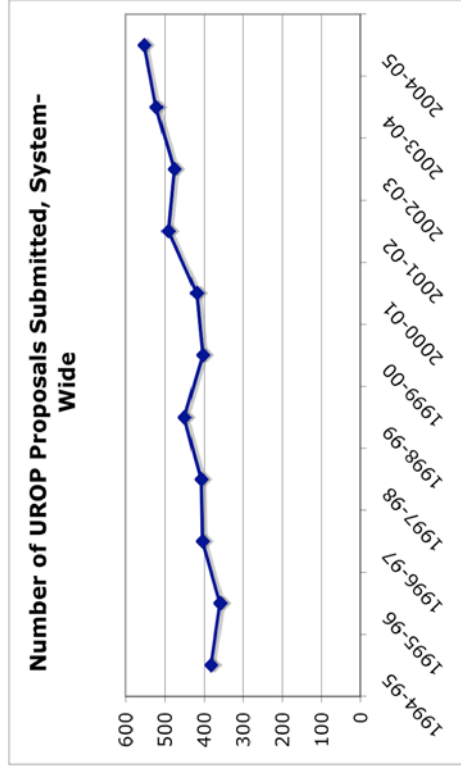


Fig. 10. UROP proposals received and funded from 1994-95 to 2004-05

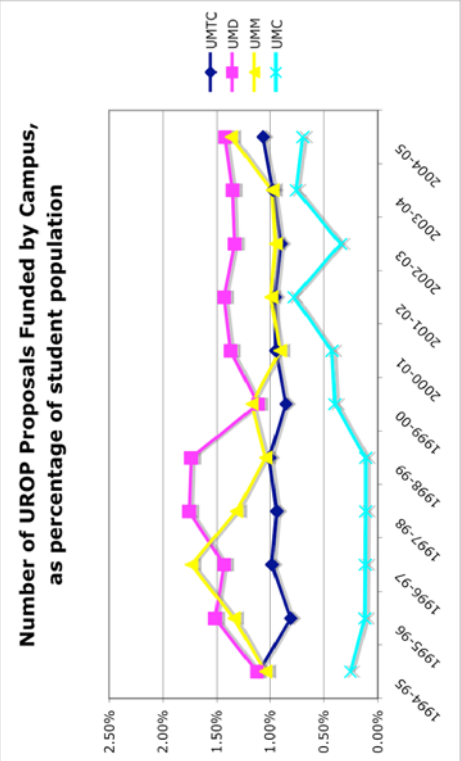
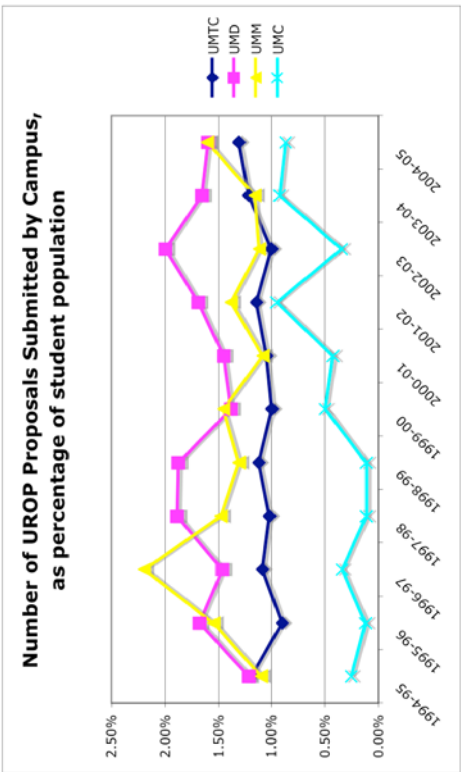
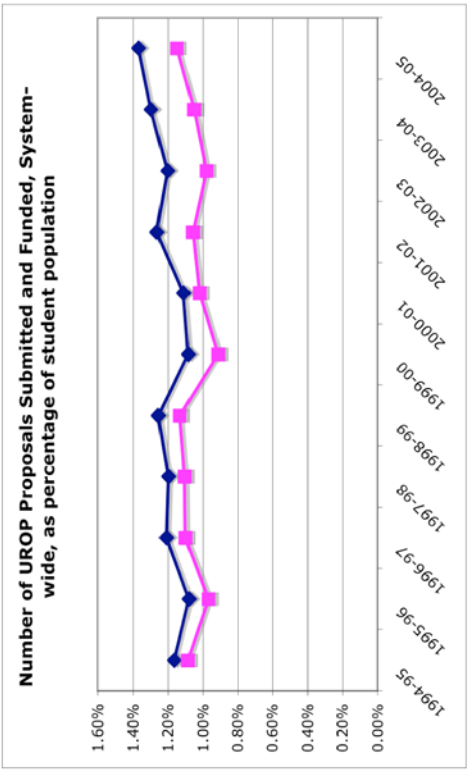


Fig. 11. UROP proposals received and funded from 1994-95 to 2004-05